



Local Division Munich
UPC_CFI_2307/2026

Order
of the Court of First Instance of the Unified Patent Court
Local Division Munich
issued on 15 September 2026

APPLICANT:

OXFORD NANOPORE TECHNOLOGIES PLC

Gosling Building Edmund Halley Road, Oxford Science Park, Oxford, Oxfordshire, United Kingdom, OX4 4DQ

represented by: Marianne Schaffner (Gowling WLG (France) AARPI)

supported by: Charlotte Chambon (Gowling WLG (France) AARPI);
Lee Chapman (Greaves Brewster LLP)

in the following: "Oxford"

RESPONENTS:

- 1. MGI TECH GmbH**
Volmerstraße 5-9, 12489 Berlin, Germany

in the following: "Respondent 1)" or "MGI"

1) represented by: Dr. Stephan Neuhaus (Allen Overy Shearman Sterling LLP)

1) supported by: Frits Gerritzen, Caroline Bley, Teresa Limberg, Sara Swinkels and all further registered representatives of Allen Overy Shearman Sterling LLP; Dr. Lasse Weinmann, Dr. Boris Tchitchanov, Dr. Elisabeth Engelhard, Dr. Michael Pfeifer, Dr. Dominik Scheible, Sofie McPherson, PhD and Dr.

Daniel Offenbartl-Stiegert (Hoffmann Eitle Patent- und Rechtsanwälte PartmbB)

2. **MGI TECH CO., LIMITED**
2nd Floor, Building 11, Beishan Industrial Zone Complex, Yantian District, Shenzhen 518083, People's Republic of China
3. **BGI HANGZHOU CYCLONESEQ TECHNOLOGY CO., LTD,**
Room 301, 3rd Floor, Building 1, Huayuan Village, No. 203, Zhenzhong Road, Xihu District, Hangzhou, Zhejiang 310030, People's Republic of China
4. **SHENZHEN BGI GENOMICS CO., LTD**
1-1, 8 South, Building B, BGI Time Center, Yunhua Road 9, Yantian District, Shenzhen 518081, People's Republic of China

in the following: "Respondents 2) - 4)"

PATENTS AT ISSUE:

European patents n° 2 422 198 B1, 2 715 343 B1, ~~2 964 779 B1, 3 097 210 B2~~

PANEL/DIVISION:

Panel 1a of the Local Division Munich:

Dr Matthias Zigann (PJ and JR), Rute Lopes (LQJ), Dr Ina Schnurr (LQJ), Dr Steen Wadskov-Hansen (TQJ).

LQJ Tobias Pichlmaier could not participate at the oral hearing and was replaced by LQJ Dr Ina Schnurr.

DECIDING JUDGE:

This order has been issued by the whole panel.

LANGUAGE OF THE PROCEEDINGS:

English

SUBJECT OF THE PROCEEDINGS:

RoP 206 (provisional measures)

PROCEDURAL BACKGROUND:

1. At 23:21 on 26 June 2026, the applicant (short “Oxford”) filed an application for provisional measures with the LD Munich, declaring it urgent. In the application, Oxford argues that the four respondents are infringing, or are about to infringe, four patents by advertising and selling the 'Cyclone Devices', together with flow cells and reagents, in France, Denmark, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the UK. Oxford requested injunctive relief, sequestration and information in relation to these territories. No application was made for ex parte proceedings.
2. The Court was informed in the application that the marketing and sale of the Cyclone Platform is the subject of ongoing patent infringement proceedings in the Federal Court of Australia. In the Australian proceedings, MGI Australia Pty Ltd and the second respondent have admitted that the CycloneSEQ-WT02 falls within the scope of the asserted claims of four Australian patents, which are the Australian equivalents of the patents asserted in these proceedings.
3. Due to the urgent nature of the application, the judge-rapporteur (JR) asked the President of the Court of First Instance on 29 June 2026 to swiftly appoint an international legally qualified judge and a technically qualified judge to the panel. The full panel held an initial deliberation on the application on 30 June 2026. The panel instructed the JR to issue the order mentioned under item 4.
4. On 30 June 2026 at 06:00 pm the JR made the following order:
 - I. Oxford is invited to amend the application by adding a claim construction for each of the four patents, which should explain the features of the relevant patent claims. Oxford should also add an explanation of why the remedies sought for the territories where the UPCA is not applicable (Liechtenstein, Switzerland, Ireland and the UK) are well founded. This should include citing the relevant foreign legal provisions and providing translations into the language of the proceedings. This should be done within one week of the upload of this order. If Oxford considers this deadline too challenging, it shall limit the application to a smaller number of patents and/or territories.
 - II. Oxford is advised that the infringement mapping will probably only suffice if the respondents do not dispute infringement, as was the case in the Australian proceedings. Oxford is invited to amend the infringement mapping as a precaution within one week of this order being uploaded.
 - III. The respondents are invited to file an objection pursuant to R. 209.1(a) RoP by 24 July 2026, provided that service is successful by that date. If this is not the case for all respondents, the panel will consider separating the case and setting new deadlines in the separation order.

IV. Oxford is invited to comment on the respondent's objection by 31 July 2026.

V. The respondents are invited to comment on Oxford's response by 6 August 2026.

VI. The panel will decide how to proceed formally with the application at a later stage. If the panel decides to hold an oral hearing, it will take place on 19 and 20 August 2026 at 9:00 am in Denisstr. 3, Munich (hearing room 212 and overflow room 220b). Parties are asked to reserve these dates.

VII. Oxford estimates the value of the proceedings at € 500,000. The panel will re-estimate this value after the respondents have filed the objection."

5. The application for provisional measures (without exhibits) and the order dated 30 June 2026 were served to respondent 1) in hard copy on 7 July 2026.
6. At 9.53 pm on 7 July 2026, Oxford replied to the Court's order with a brief. Among other things, the application regarding EP 2 964 779 B1 and EP 3 097 210 B2 was withdrawn. Furthermore, Oxford filed an amended version of the application brief. These briefs were made available to the representative of respondent 1) on 9 July 2027 via Tresorit, as the representative was experiencing technical issues accessing the CMS case file.
7. The technical issues were resolved, and the representative of respondent 1) gained full access to the CMS file on 10 July 2026.
8. On 14 July 2026, MGI filed an application for an extension to the time limit for filing an objection, requesting:

"1. extend the time limit for Respondent 1) to lodge its Objection to the Application for Provisional Measures from Friday, 24 July 2026 to Friday, 31 July 2026 pursuant to Rule 9.3(a) RoP;

2. in the alternative, extend the time limit by such shorter period as the Court considers appropriate but at least until Monday, 27 July 2026; and

3. make any further case-management directions necessary to preserve the efficient and fair conduct of these proceedings."

9. At 01:19 on 15 July 2027, the JR uploaded the following communication to the parties.

"Applicant is invited to file observations on the deadline extension request by 17 July 2026. Parties are advised that a granted extension might have an effect on the date of the oral hearing".

10. On 16 July 2026, Oxford filed observations on this application and informed the Court that they consented to the deadline being extended to 27 July, provided that the date for a possible oral hearing was not changed.
11. At 13:17 on 17 July 2026, the JR uploaded the following communication to the parties:

“Parties are advised that the MGI's applications for a time extension will be rejected. A reasoned order will be uploaded in due course. This information is intended to enable party representatives to begin making the necessary preparations.”
12. At 17:16 on 17 July 2026, the JR uploaded the order rejecting the application.
13. On 24 July 2026, MGI filed an objection to the application for provisional measures.
14. On 29 July 2027, the JR, after consulting with the panel, summoned the parties to the oral hearing.

“1. Oxford and MGI are scheduled to attend the oral hearing on 19 and 20 August 2026 at 09:00, Denisstr. 3, Munich (room 212 and overflow room 220b). The other respondents may participate as parties if they are represented by a UPC representative. Otherwise, they may participate as members of the public. The second day is to be understood as a precaution. If the hearing can be concluded on the first day, the second day will not be necessary.

2. By 12 August 2026, parties are asked to inform the Court of the names and functions of participants in the oral hearing, and whether they will attend in person or via videoconference.

3. If parties wish to support their oral submission with PowerPoint presentations, they must provide these to the Court and the other party by 12 August 2026. The content is limited to that present in the CMS file on that date.”
15. On 31 July 2026, Oxford filed a response to the objection.
16. On 6 August 2026, MGI filed a rejoinder.
17. On 11 August 2026, Oxford filed an application to struck-out specific passages of the rejoinder and exhibits AOS 12 and 13 as late filed.
18. On 12 August 2026, MGI filed a brief in response to this application.

19. On 19 August 2026, an oral hearing was held with Oxford and MGI being represented by UPC representatives and concluded on that day. In the oral hearing Oxford partly withdrew, with the agreement of MGI and the Court, the application as regards claim 13 of EP 343. Both parties agreed to a cost reimbursement for the successful party of € 100,000.
20. Service on respondents 2), 3) and 4) has not yet been formally effected. UPC representatives for respondent 1) refused to accept service for them, although the Court invited them to accept service voluntarily with the order dated 29 July 2026 and again in the oral hearing of 19 August 2026.
21. On 4 September 2026, Oxford submitted a brief to the Court, informing it of an additional court fee payment to reflect the discussion about the value of the case during the oral hearing. This payment was based on an expected value of € 4 million. They also informed the Court that they estimate the value to be attributed to the UPC CMSs to represent 65% of the overall value and 35% for the countries covered by the long arm jurisdiction of the UPC. To the extent it may become relevant, Oxford assessed the value of the application attributable to Denmark and Ireland as approximately 5% each.

FACTS OF THE CASE AND MAJOR POINTS OF DISPUTE BETWEEN THE PARTIES

The applicant (Oxford)

22. The Applicant (short “Oxford”) is a company incorporated in the United Kingdom which carries on business, inter alia, developing nanopore sequencing technology. It claims to have developed a new approach to DNA and RNA sequencing which utilises nanopores embedded in an electro-resistant membrane. Oxford was founded in 2005 as a spin-out from the University of Oxford and floated as a publicly listed company on the London Stock Exchange in 2021.
23. Oxford manufactures and markets the MinION®, GridION® and PromethION® devices, each of which is a sequencing device used with flow cells. The products incorporate Oxford’s nanopore technology to sequence polynucleotide molecules. The patents subject to the application protect fundamental aspects of Oxford’s devices.

The patents in suit

24. Oxford is the registered proprietor of each of the following patents:

EP 2 422 198 B1
EP 2 715 343 B1
EP 2 964 779 B1
EP 3 097 210 B2

25. Oxford has partly withdrawn, with the consent of MGI and the Court, the application in respect of EP 779 and EP 210 and in respect of Claim 13 of EP 343. Claims 1 and 7 of EP 198 and claim 1 of EP 343 remain subject to the application.

26. EP 198 (Exhibit ONT-2) relates to a lipid bilayer sensor array and was filed on 19 April 2010 claiming priority of 20 April 2009 (US 170729 P). The application was published on 29 February 2012. EP 198 is in force in each of Switzerland, Germany, Denmark, France, United Kingdom, Liechtenstein and the Netherlands. EP 198 was upheld following an opposition before the EPO and a corresponding appeal before the Board of Appeal of the EPO (Application paragraph 129, Exhibit ONT-78).

Claim 1 of EP 198 reads:

1. A method of sensing an interaction of a molecular entity with a membrane protein in a lipid bilayer (26) or layer of other amphiphilic molecules, the method comprising:

providing a sensor device (2) comprising an array of sensor elements each arranged to support a lipid bilayer (26) or layer of other amphiphilic molecules in which a membrane protein is capable of insertion and including respective electrodes (22), each sensor element being arranged to output an electrical signal at the electrode that is dependent on an interaction of a molecular entity with a membrane protein in a lipid bilayer (26) or layer of other amphiphilic molecules with a quality of performance that is variable depending on whether a membrane is formed and on the number of membrane proteins inserted;

characterised by the steps of:

providing a detection circuit (3) comprising a plurality of detection channels (30) each capable of amplifying an electrical signal from one of the sensor elements, the number of sensor elements in the array being greater than the number of detection channels (30);

providing a switch arrangement (31) capable of selectively connecting the detection channels (30) to respective sensor elements; and

controlling the switching arrangement (31) to selectively connect the detection channels to respective sensor elements in respect of which a lipid bilayer (26) or layer of other amphiphilic molecules is formed and an acceptable number of effective membrane proteins are inserted, on the basis of the amplified electrical signals that are output from the detection channels (30).

Claim 7 of EP 198 is the respective device claim.

27. EP 343 (Exhibit ONT-3) relates to a coupling method and was filed on 25 May 2012 claiming priority of 27 May 2011 (US 201161490860 P) and 15 February 2012 (US 201261599246 P). The application was published on 9 April 2014. EP 343 is in force in each of the countries

Switzerland, Germany, France, United Kingdom, Ireland, Liechtenstein and the Netherlands.

Claim 1 of EP 343 reads:

A method for determining the presence, absence or characteristics of an analyte, comprising

(a) coupling the analyte to a membrane comprising a detector wherein the analyte is not coupled to the membrane via the detector and

(b) allowing the analyte to interact with the detector present in the membrane and thereby determining the presence, absence or characteristics of the analyte.

The respondents

28. The four respondents are part of a group of companies associated with Beijing Genomics Institute (the "BGI Group") which have made, sold and used nanopore sequencing devices called the CycloneSEQ-WT021, the CycloneSEQ-WY01, the G100-ER and the G400-ER (the "Cyclone Devices"). The term "Cyclone Platform" is used to describe the Cyclone Devices with the flow cells and reagents. The BGI Group's development of the Cyclone Platform is the subject of separate proceedings in the High Court of England and Wales for inter alia breach of confidence and trade secret infringement, and the marketing and sale of the Cyclone Platform is the subject of patent infringement proceedings in the Federal Court of Australia. Some of the respondents are also parties to these proceedings, as set out below.

29. Oxford reports on the UK proceedings as follows:

"The Applicant and the BGI Group historically had a commercial relationship. As a result of the relationship certain entities within the BGI Group obtained access to the Applicant's proprietary nanopore sequencing technology and devices through a series of agreements, including participation in the Applicant's MinION Access Programme and subsequent commercial supply agreements. These agreements contained strict restrictions on the use of the Applicant's technology and confidential information, including prohibitions on using the technology to develop competing products. Whilst the relevant entities of the BGI Group initially gave the Applicant assurances that it had no interest in developing nanopore-based technology, the BGI Group (which for the avoidance of doubt includes the Defendants) has developed and marketed inter alia the Cyclone Platform, nanopore sequencing devices which directly compete with the Applicant's Devices. The Applicant was taken by complete surprise when it learnt in 2024 that BGI was claiming to have developed devices using the nanopore sequencing method. As a consequence, the Applicant brought proceedings against the Second and Third Defendant and certain entities of the BGI Group before the High Court of England and Wales for breach of confidence, trade secret infringement and breach of contract (the "UK Proceedings"). Whilst the UK Proceedings

were commenced on 5 December 2024, they have only been served on the relevant defendants in the People's Republic of China between 15 – 29 May 2026. Delays were caused by the judicial process of serving via the Hague Convention.”

It is to be noted that respondent 1) (short “MGI”) did not dispute this allegation.

30. In the reply to the objection, Oxford further declared (mn. 350):

“The UK Proceedings have been brought against respondents 2) – 4) and other related entities, in respect of *inter alia* trade secret infringement, breach of confidential information and breach of contract. The background to those proceedings is that certain entities within the BGI group obtained the Cyclone Platform under the false pretence that it was not interested in and would not develop sequencing technologies. Those entities provided explicit assurances that it was not interested in developing sequencing technologies (Exhibit ONT-89) which misled the applicant and subject to which the Cyclone Platform was obtained. The respondents and other BGI group related entities have conspired against the applicant and have now developed an infringing copy of the Cyclone Platform. This conduct has led to the Australian Proceedings and the present application before this Court. Accordingly, it is entirely just and proportionate to ensure that the injunction adequately protects the Applicant's intellectual property.”

It is to be noted that respondent 1) (short “MGI”) did not dispute this allegation either.

31. In these UK Proceedings, Quinn Emanuel on behalf of the defendants in that case (which include respondents 2), 3) and 4)) have been actively engaged including recently engaging in correspondence and filing evidence for the defendants. During said correspondence, Gowling WLG (UK) LLP (representing Oxford in the UK Proceedings) provided a copy of the application at hand to Quinn Emanuel and therefore, to respondents 2), 3) and 4). Oxford is therefore of the view that respondents 2) to 4) are each aware of these UPC proceedings.

It is to be noted that respondent 1) (short “MGI”) did not dispute this.

32. Oxford reports on the Australian proceedings as follows:

“In August 2025, the Applicant filed patent infringement proceedings in the Federal Court of Australia against MGI Australia Pty Ltd (“MGI Australia”) and MGI Tech Co., Ltd (the Second Defendant in this Application) in relation to the Cyclone Platform which were known at the time of filing (the “Australian Proceedings”). The Australian Proceedings concern four Australian patents of which two are the Australian equivalents of the Patents asserted in these proceedings, see Exhibits ONT-33 and ONT-34:

- a. Australian Patent No. 2010240670 (“670 Patent”) entitled “Lipid bilayer sensor array” – the Australian equivalent of EP 198;

b. Australian Patent No. 2012264497 ("497 Patent") entitled "Coupling method" – the Australian equivalent of EP 343;

c. Australian Patent No. 2014224432 ("432 Patent") entitled "Enzyme stalling method" – the Australian equivalent of EP 2 964 779 B1 ("EP 779"); and

d. Australian Patent No. 2015208919 ("919 Patent") entitled "Method for attaching one or more polynucleotide binding proteins to a target polynucleotide" – the Australian equivalent of EP 3 097 210 B2 ("EP 210").

The Statement of Claim is dated 6 August 2025 (see Exhibit ONT-6). By an amended defense filed on 17 December 2025, MGI Australia and the second Defendant admitted that the CycloneSEQ-WT02 Sequencer has all the features of all asserted claims of the 670 Patent, the 497 Patent, the 432 Patent and the 919 Patent. 20 MGI Australia and the Second Defendant's only defense to these patents is invalidity, which it raises by way of cross-claim (see Exhibit ONT-9).

By letter dated 26 June 2026 (see Exhibit ONT-55), the lawyers for MGI Australia and the respondent 2) further admitted that:

"There are no relevant differences between the G400-ER (previously the CycloneSEQWY01) and the G100-ER (previously the CycloneSEQ-WT02) when considered against the asserted claims of the patents in suit ... each admission made regarding the G100-ER in the amended defence dated 17 December 2025 ... applies equally to the G400-ER."

As confirmed at a preliminary hearing before [REDACTED] on 16 December 2025, counsel for MGI Australia and respondent 2) stated that *"MGI is not going to contest the question of infringement".*

Respondent 1) (in the following "respondent 1)" or short "MGI")

33. Respondent 1) is a company incorporated in Germany with its registered office in Berlin.

34. Respondent 1) hosts the European headquarters of both the MGI group generally and of respondent 2) specifically.

35. There, respondent 1) operates a "Customer Experience Centre" (CEC) for Europe:

36. In a press release and in an article (Exhibits ONT-17 and ONT-77) it is said that these European headquarters are "[e]quipped with MGI's full product portfolio". It is also stated that "the facility has been configured with DNA sequencing, Cell Omics and Spatial Omics capabilities, positioned to support novel application and project development for MGI

customers and collaborators". Further it is said that "[i]t will also be home to prototypes of upcoming MGI products for early access and testing by European partners and collaborators". Further the CEC "allows visitors to "test workflows using representative samples, explore end-to-end solutions, evaluate interoperability with existing systems, and collaborate directly with specialists." MGI's own Senior Director of Product, [REDACTED] states "[a]dopting a high-throughput sequencing platform or advanced analytical instrument represents a significant investment for many organizations". [REDACTED] continues to explain that "[w]ithin our facilities, before committing resources, users have the opportunity to evaluate the technology firsthand, understand its capabilities, and assess how it will perform within their expected workflows". In Oxford's view respondent 2) and respondent 1) are accordingly jointly commercialising the CycloneSEQ Platform via the CEC. At least they could launch the Cyclone Platform commercially at any moment as evidenced by Exhibit ONT-77 and the YouTube video (see next mn.) as these two pieces of evidence show that MGI possesses in Berlin the infrastructure, specialist staff, customer relationships, and the Cyclone Platform itself.

The screenshot shows a webpage from Labiotech. The header includes the Labiotech logo, navigation links for Categories, Sectors, Drug Development, and More, and a search bar. A red box highlights 'Exhibit ONT-77'. The article is titled 'Why Customer Experience Centers are becoming practical infrastructure for life sciences innovation in Europe' by Francina Agosti, dated July 7, 2026. It is sponsored by MGI International. The main image shows the MGI European Headquarters in Berlin, with a tall tower and a cityscape. A sidebar on the right contains an advertisement for 'Your pharma partnering experience belongs in this year's annual partnering report.' with a 'Take the survey' button. A digital signature for Marianne Schaffner is visible in the top right corner.

37. Respondent 1)'s premises in Berlin are subject to a YouTube video.

In this YouTube video entitled "MGI European Headquarters Tour Vlog" on a channel run by "MGI" a Cyclone Device can be seen at MGI's premises. The YouTube video can be found here <https://www.youtube.com/watch?v=vtza4YThBEI>. The video begins by identifying MGI's premises before stating (as stated on the English subtitles) "We hope to bring all our European clients here as it might be too far for them to visit MGI in China but they can at least come to Berlin to see our latest equipment and how our cutting-edge technologies can empower their work in life sciences and biotechnology fields". During this statement,

at around 0:26 in the video, an image can be seen of a respondent 1) employee holding a Cyclone Device:



Later in the video, at around 2:56, the same employee is shown alongside other individuals with the address of respondent 1) in the bottom-right hand corner. It is apparent, so Oxford, that the two images are taken at the same place, based on the background, and that therefore, the Cyclone Device was at the premises of respondent 1) at least at the time of making the video. It can be seen from the MGI Website, so Oxford, that the device identified in the YouTube video referred to above (at the still at 2:56) is the G100-ER:

DNBSEQ Sequencers

CycloneSEQ Sequencers

Sequencing Consumables



G100-ER
Dual-Flow Nanopore Sequencing

G400-ER
Experience Seamless Sequencing

In Oxford's view, at least the G100-ER is being marketed / offered in Europe and stored in Germany for that purpose. The product must also, in Oxford's view, have been imported from the People's Republic of China, where the product was manufactured, to Germany.

38. Respondent 1) is responsible for the MGI Europe Website (see Exhibit ONT-56) which however does not feature the Cyclone Platform.

39. Respondent 1) further markets MGI / BGI's range of products at conferences.
40. Respondent 1) is listed as an importer on the European Database on Medical Devices for respondent 2) (Exhibit ONT-75):

Exhibit ONT-75

The screenshot shows the EUDAMED (European Database on Medical Devices) website. The header includes the European Commission logo and a search bar. The main navigation bar has links for Home, Actors, UDI/Devices, Certificates, Market Surveillance, and News. The breadcrumb trail indicates the path: Home > Economic Operators > DE-IM-000033168. The page title is 'Importer, DE-IM-000033168, MGI Tech GmbH - [Germany]'. Below this is a 'Go back to the list' button. The 'Actor information' section shows 'Version 1 (Current)' with a last update date of 2023-02-01. The 'Actor identification' table lists the following details:

Actor identification	
Actor ID/SRN	DE-IM-000033168
Role	Importer
Country	Germany
Actor/Organisation name	MGI Tech GmbH [EN]
Abbreviated name	-
VAT number	DE346378420
EORI	-
National trade register	-
Last confirmation date of actor data accuracy	-

41. As respondent 2) owns the CycloneSEQ technology (see Exhibit ONT-21) and respondent 3) (the manufacturer of the CycloneSEQ Platform) is now wholly owned by respondent 2) it is, in Oxford's view, highly likely that respondent 1) is or imminently will be the importer of the CycloneSEQ Platform into Europe. Exhibit ONT-75 confirms that the Competent Authority for respondent 1) is "DE/CA29 - Regierungspräsidium Darmstadt Abteilung Arbeitsschutz und Umwelt". The DE/CA29 code is the specific authority identifier of the Darmstadt Regional Council (Occupational Health and Safety Division / Division VI) in the official European Medical Device and Authority Directory (see Exhibit ONT-76). This represents, so Oxford, a further indication of importation (historic or imminent) into Germany.

Respondent 2)

42. Respondent 2) is a company incorporated in the People's Republic of China with its registered office in Shenzhen.
43. Respondent 2) is the exclusive global distributor of the Cyclone Platform.
44. Respondent 2) is responsible for the MGI website:

MARIANNE
SCHAFFNER

First European patent holder for the first commercial nanopore sequencing technology

Exhibit CNT-42

Type to start searching

SEARCH

MGI

10
ANNIVERSARY

HOME

PRODUCTS

TECHNOLOGY

SUPPORT

ABOUT MGI

CHANGE REGION

G100-ER: Nano Gates to the Macro Cosmos

G100-ER is a nanopore genetic sequencer with a dual-flow-cell architecture that allows independent, simultaneous operation. Offering flexible throughput and exceptional performance—including broad coverage, rapid sequencing, and adaptable testing—it tackles the challenges of complex sequences and meets diverse research needs across applications such as microbial genome research, metagenomics, amplicon-based microbial detection, targeted disease testing, small whole-genome sequencing, and whole transcriptome studies.

REQUEST QUOTE

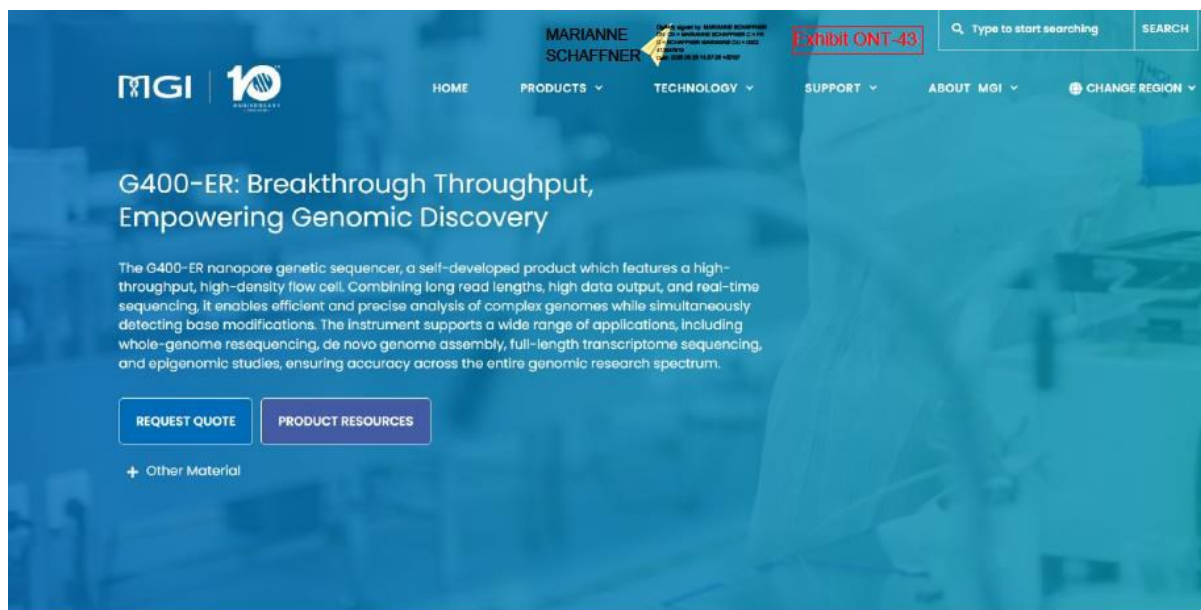
PRODUCT RESOURCES

+ Other Material

Product Overview

The image displays two perspectives of the G100-ER nanopore genetic sequencer. On the left is a front-facing view of a dark, rectangular unit with a perforated front panel. A glowing blue logo, resembling a stylized 'C' or a network, is centered on the panel, with the text 'CycloneSEQ' printed below it. On the right is a side-view or cutaway-style image of the same unit, revealing the internal components, including what appears to be a flow cell and various electronic modules, all housed within a compact, industrial-grade chassis.

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Product Overview



45. The MGI website is globally accessible, including to potential customers located in the UPC CMSs and for example the UK, and advertises both the G100-ER and G400-ER products, namely the Cyclone Platform. The MGI Website advertises its sequencing products under the "Sequencer Products: SEQ ALL" webpage (<https://global-mgitech.com/seqall/>). This webpage allows the user to select the CycloneSEQ product range, which in turn displays both the G100-ER and G400-ER products. Selecting either product redirects the user to its individual product page (<https://globalmgitech.com/seqall/cycloneseq-g100/>; <https://global-mgitech.com/seqall/cycloneseqg400-er/>) (the "Cyclone Product Pages"). Each page provides detailed descriptions, technical specifications, and promotional imagery relating to the G100-ER and G400-ER devices. The Cyclone Product Pages are not merely informational. Each page includes a prominent "REQUEST QUOTE" button, designed to channel visitor interest into direct commercial engagement. By clicking "REQUEST QUOTE", the user is redirected to the "Contact Us" webpage (<https://global-mgitech.com/contact/>), through which they may submit their details and request a quote

or further information about the products. The website does not, in the view of respondent 1), offer the Cyclone Platform to customers in Europe.

46. Respondent 2) is the sole shareholder of respondent 3) (Exhibit ONT-25).

47. Respondent 2) is also party to the UK and Australian proceedings.

Respondent 3)

48. Respondent 3) is a company incorporated in the People's Republic of China with registered office in Zhejiang.

49. Respondent 3) is the manufacturer of the Cyclone devices and of respective flow cells and reagents.

Respondent 3), as manufacturer of the Cyclone Devices, must provide, in Oxford's view, those products to respondent 2), and given respondent 1) has imported at least one product into Europe is also involved in the European distribution network.

50. Respondent 3) holds the CE mark for the G100-ER.

As part of the announcement of CE-mark approval for its products "CycloneSEQ" is described as a "BGI Group subsidiary" (see Exhibit ONT-11) (see also AOS 3a and AOS 3b confirming that the CE-Mark Declarations of Conformity are in the name of respondent 3). As part of the announcement "MGI" was described as the exclusive global distributor for CycloneSEQ nanopore sequencers. In Oxford's view there is no reason to have those markings other than to permit those CycloneSEQ devices to be sold in Europe, by respondent 1) and/or respondent 2).

51. Respondent 3) is also party to the UK proceedings.

Respondent 4)

52. Respondent 4) is a company incorporated in the People's Republic of China with its registered office in Shenzhen.

53. Respondent 4) has posted a LinkedIn post on 14 May 2026 (see Exhibit ONT-10):



BGI Genomics
95,213 followers
1mo · 🌐

Exhibit ONT-10

MARIANNE SCHAFFNER
Digitally signed by:
MARIANNE SCHAFFNER
DN: CN =
MARIANNE
SCHAFFNER C = FR
O = SCHAFFNER
MARIANNE OU =
0002412647919
Date: 2026.06.26
14:28:24 +02'00'

🔓 Unlock the power of long-read sequencing - up to 50% off for Europe!

Struggling to detect large structural variants, assemble complex genomes, or capture full epigenetic signatures? 😞 🧬

Accelerate your research with CycloneSEQ, BGI Group's nanopore sequencing technology platform officially launched in 2024. 🚀

📌 CycloneSEQ Long-Read Sequencing Services are now available for early adopters in Europe with up to 50% discount!

Science at your doorstep – powered by our European labs! 🏢
Local support, fast turnaround, and world-class long-read solutions.

Key Technology Advantages:

- ✓ Efficient long-read and direct sequencing
- ✓ High-throughput with a single flow cell
- ✓ Real-time sequencing for rapid insights
- ✓ Direct detection of epigenetic modifications

Supported Applications:

- ◆ Long-read human whole genome resequencing
- ◆ Long-read plant & animal genome sequencing
- ◆ Bacterial de novo sequencing
- ◆ Full-length transcriptome sequencing

📌 Don't miss this opportunity to accelerate your multi-omics research with long-read solutions. We look forward to supporting your next breakthrough. 😊

European Labs, Local Speed — World-Class Genomics

BGI·Tech

Limited Time Promotion

CycloneSEQ: Empowering Long-Read Solutions for Multi-Omics Research

Up to 50% OFF

Long-Read Sequencing Services Empower Multi-Omics Services

Long-read sequencing overcomes the limitations of short-read technology, enabling high detection rates of large structural variants via long fragment library construction.

CycloneSEQ is a nanopore sequencing technology platform officially launched by BGI Group in 2024. Powered by the innovative CycloneSEQ platform and supported by standardized bioinformatics pipelines, BGI Tech's CycloneSEQ long-read sequencing services deliver superior data quality and reliable, actionable insights.

Service Advantages

1. Efficient long-read and direct sequencing
2. High-throughput with a single flow cell
3. Real-time sequencing for rapid insights
4. Direct detection of epigenetic modifications

Supported Services

- ✓ Long-read human whole genome resequencing
- ✓ Long-read plant and animal genome sequencing
- ✓ Bacterial *de novo* sequencing
- ✓ Full-length transcriptome sequencing

Promotion Terms and Conditions

1. Promotion applies only to contracts signed on or before August 31, 2026.
2. The samples must be submitted on or before September 30.
3. This offer is limited to customers located in Europe.
4. This is a limited and conditional offer subject to the actual execution of the contract. BGI Tech reserves the right to terminate or modify this promotion.

Request for Information or Quotation

✉ info@bgi.com 🌐 www.bgi.com/global

Connect with a BGI Tech representative to explore how we can address your specific needs, or to get expert guidance on experimental design—from sample processing to bioinformatics analysis.

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CycloneSEQ G400-ER



CycloneSEQ G100-ER




www.bgi.com BGI Genomics

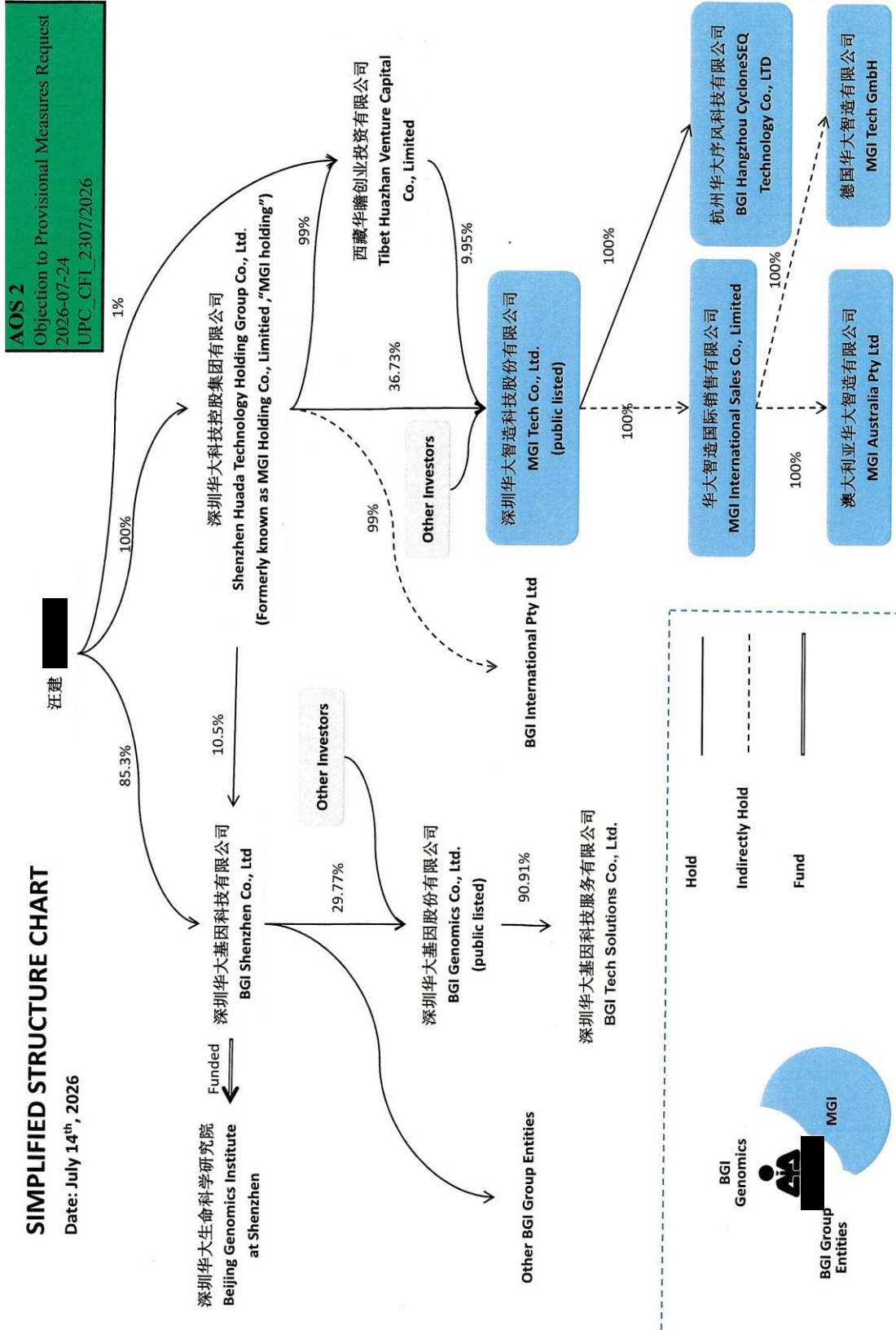
The LinkedIn post states explicitly that such services "are now available for early adopters in Europe with up to 50% discount!". The LinkedIn post includes under a section entitled "Promotion Terms and Conditions" statements that

- "1. Promotion applies only to contracts signed on or before August 31, 2026.
- 2. The samples must be submitted on or before September 30.
- 3. This Offer is limited to customers located in Europe."

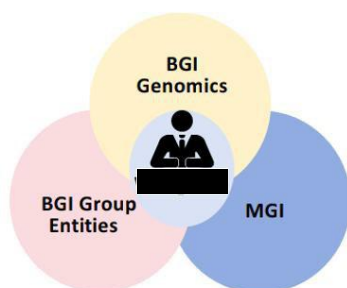
Further the post describes the CycloneSEQ technology platform as "BGI Group's technology platform". This is even though at the date of the LinkedIn Post the MGI group (specifically respondent 2) owned the CycloneSEQ technology (see for example Exhibit ONT-21). BGI's own marketing therefore suggests, in Oxford's view, that there is interplay / overlap between the MGI and BGI groups.

Respondent 1) argues that the offered process is carried out on devices placed in Poland, where the patents in suit are not validated.

- 54. Respondent 4) purchases Cyclone Devices from respondent 2).
- 55. Respondent 4) is also party to the UK proceedings.
- 56. The group of MGI and BGI companies had been explained by respondent 1) with a simplified structure chart (AOS 2) as follows [see next page]:



57. From this it can be derived, in Oxford's view, that the respondents are under common (indirect) ownership by [REDACTED] [REDACTED]. Further, another entity, Shenzhen Huada Technology Holding Group Co., Ltd., owns a shareholding in BGI Shenzhen Co., Ltd. (the parent company of respondent 4) and in MGI Tech Co., Ltd. (respondent 2), which itself indirectly, or directly, holds 100 percent of the shares in respondent 1) and respondent 3). The diagram in AOS 2 shows the overlap between the MGI group, the BGI group and the common owner, [REDACTED]



58. Oxford has discovered the CSET Report on China, BioTechnology, and BGI dated May 2024 (Exhibit ONT-66). That, in Oxford's views, indicates the link in personnel, and ownership, between the various MGI and BGI companies:

"Overlapping Leadership Blurs the Lines Between BGI and MGI and the State

Further complicating the corporate structure of BGI Group, BGI Genomics and MGI Tech, several key executives simultaneously hold leadership positions in multiple parts of the organization, in each organization, as well as government-related positions State Key Labs or Government Guidance Funds or actual government positions. This is similar to the leadership movements of State Owned Enterprises (SOE) where individuals move between the SOE, research enterprises such as State Key Labs, Universities and Chinese Academy of Sciences, as well as positions in Chinese ministries and government offices.

For example, [REDACTED] is the chairman of MGI (深圳华大智造科技股份有限公司) and, through Zhizao Holdings (智造控股) and Huazhan Venture Capital (华瞻创投), owns 52% of its stocks. He is also the cofounder and chairman of the board of directors of BGI Group, and according to 2022 MGI prospectus, chairman of both Shenzhen Huada Gene (深圳华大基因科技有限公司) and BGI Genomics (深圳 华大基因股份有限公司)."

59. This impression is supported, so Oxford, by the fact that several individuals within the BGI Leadership Team who appear to be employed, or at the very least are closely affiliated with MGI. These individuals are both within BGI's Leadership and described as having various roles within MGI, at the highest levels of seniority.

- a. [REDACTED] Vice Chairman of MGI

[REDACTED] Vice Chairman of MGI, is committed to breaking down barriers in the area of science and technology, and building MGI into a global leader in providing industry core tools and conducting life science research with his team...." (Exhibit ONT-67).

- b. [REDACTED] President of [REDACTED]

[REDACTED] President of MGI, joined BGI Group in 2014 and held various appointments, including General Manager of Asia Pacific and South China, Chief Operating Officer of BGI Group, Director of BGI International Development Centre, EMT Member of BGI Group, and Executive Vice President of BGI Group. Prior to joining BGI Group, Duncan held various leadership roles in China and Asia Pacific with Amersham and GE Healthcare during 1993 - 2013." (Exhibit ONT-68).

- c. [REDACTED] General Manager of MGI

[REDACTED] General Manager of MGI, earned his master's degree in Mechatronic Engineering from Huazhong University of Science and Technology in June 2009. He joined BGI in January 2014 and has held various leadership roles, including Director of the Instrument Development Center at BGI Research, Vice President, Executive Vice President, and currently President of the Americas Region at MGI... " (Exhibit ONT-69).

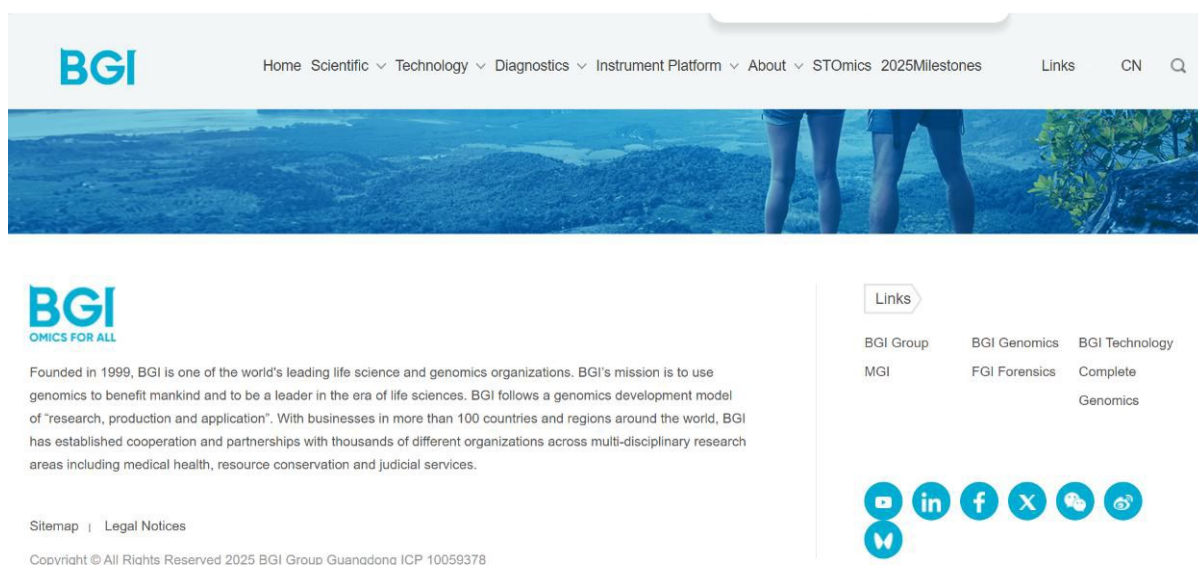
- d. [REDACTED] President Europe and Africa of MGI

[REDACTED] General Manager of BGI Genomics, is a researcher with a Ph. D. degree. He was recognized as a "Shenzhen High-Level Overseas Talent" (Category B) in 2018. He joined BGI in March 2010, and has held several key positions, including Head of Medical Business at BGI Genomics, General Manager of Europe & Africa Region at MGI, Executive Director and Deputy Executive Director of BGI Research, as well as core member of both the Technology System Operation Team and Europe Operation Team at BGI Tech." (Exhibit ONT-70). [REDACTED] LinkedIn page states that he is currently President Europe and Africa of MGI, as well as being President Europe of the BGI Group at the same time (Exhibit ONT-71).

- e. [REDACTED] Senior Director of Product and Innovation, Europe at MGI

“According to her LinkedIn page [REDACTED] is both Deputy Director, BGI Research Europe at BGI Group and Senior Director of Product and Innovation, Europe at MGI” (Exhibit ONT-72).

60. This impression is further supported, so Oxford, by the fact, that the BGI Paper (Exhibit ONT-39) which describes aspects of the design and development of the CycloneSEQ, is co-authored by individuals from each of "BGI Research", respondent 3), respondent 2) and "BGI", i.e., individuals across the "MGI and BGI groups Research", respondent 3), respondent 2) and "BGI", i.e., individuals across the MGI and BGI groups.
61. The BGI website (BGI Group Official Website (Exhibit ONT-73)) includes in its associated links a link to "MGI" which links to the MGI Website, as is shown below:



The attacked Cyclone Platform and its market entry

62. The Cyclone Platform includes nanopore sequencing devices developed by the BGI Group. They each adopt what is identified as the CycloneSEQ platform which uses nanopore sequencing technology. The Cyclone Platform uses flow cells containing nanopores embedded in a membrane, through which DNA is translocated, and the resulting ionic current disruptions are measured to determine the nucleotide sequence. The BGI Paper explains that the device comprises a sensor chip with electrodes in microwells that detect ionic current disruptions caused by nucleotide sequences moving through the nanopore. In Oxford's opinion it is substantively the same as the technology used by Oxford's devices.

63. Since 2024, the BGI Group has commercialised the CycloneSEQ nanopore sequencing technology under two platforms: the G100-ER (which Oxford understands was previously marketed as the CycloneSEQ-WT0222) and the G400-ER (which Oxford understands was previously marketed as the CycloneSEQ-WY01).
64. The G100-ER is a nanopore genetic sequencer designed for lower throughput (i. e. smaller volumes of data). Its sequencing principle involves DNA library molecules linked to a motor protein being drawn to the vicinity of a nanopore protein embedded in a membrane under the influence of electric field forces; motor proteins situated near the nanopore protein's entrance steadily and rapidly unwind the DNA, allowing it to pass through the nanopore as a single strand, with different DNA bases impeding the current to varying degrees and triggering current fluctuations that are captured by channel sensors and decoded by basecalling algorithms.
65. Respondent 3) has obtained CE marking for the G-100ER under the European Union's In Vitro Diagnostic Regulation (IVDR), which was announced on 20 January 2026 and which the MGI website (see Exhibit ONT-11) explains "*reinforc[es] its compliance and readiness for regulated markets*". Given it relates to the European Union's regulation (which currently also allows for the possibility of placement onto the UK market), the statement was in Oxford's view necessarily directed towards the European market.
66. The same article identified "MGI" as "the exclusive global distributor for CycloneSeq's nanopore sequencers". Further it was stated that "MGI will first make the G100-E sequencer available in "selected" EU countries, the spokesperson said. "Any specific market plans will be determined on our corporate strategy and local regulatory requirements". In Oxford's view these statements were unclear about timings and which "selected countries".
67. The G400-ER is the high-throughput member of the CycloneSEQ platform. It combines long -read lengths, high data output, and real-time sequencing capabilities, enabling efficient and precise analysis of complex genomes while simultaneously detecting base modifications.
68. A preprint journal article entitled "*A Single-Molecule Nanopore Sequencing Platform*" dated 9 August 2024 (the "BGI Paper") (see Exhibit ONT-39) describes aspects of the design and development of the CycloneSEQ. Notably, the authors of the BGI Paper are, in Oxford's view, all associated with the BGI Group. The nanopore is described in some detail on page 6, which states:

"Based on the novel nanopore sensor chip design described above, we have successfully constructed a nanopore based single-molecule sequencing platform named CycloneSEQ. As illustrated in Fig. 4b, the flow cell module of CycloneSEQ comprises a microfluidic chip enabling the transportation and temporary storage of sample

molecules as well as supporting electrochemical reaction, an arrayed chip containing nanopores, a signal acquisition application specific integrated circuit (ASIC), and a printed circuit board with surface mounted components. Cell samples to be sequenced are processed through lysis, nucleic acid extraction, and other methods to extract long-chain DNA molecules. These DNA molecules are then subjected to DNA repair and adapter ligation. Subsequently, we mount flow cells in the socket of the CycloneSEQ sequencer and perform a chip self-check. After the self-check process, the system indicates whether the chip meets the quality criteria and the number of effective nanopores on each individual chip. After self-check process, we sequentially add the sequencing reagents and the library molecules to be sequenced into the microport of the chip, following a specific order. Then, we initiate the sequencing process through the software. Owing to the characteristics of nanopore single molecule sequencing, as soon as the sequencing starts, the high-performance workstation paired with the sequencer can commence the base calling process. The CycloneSEQ sequencer is capable of supporting sequencing and base calling in real time simultaneously."

69. Oxford understands that the CycloneSEQ-WT02 (now known as the G100-ER) was open for order through "MGI's commercial channel" in or around late 2024 and the CycloneSEQ-WY01 (now known as the G400-ER) was made available in or around early 2025 (see Exhibit ONT-37). Oxford understands that the products were available only outside of Europe at that time.
70. On 9 September 2024 it was announced that respondent 2) had global rights to commercialise and distribute the CycloneSEQ-WT02 and CycloneSEQ-WY01 devices. Later, on 3 March 2026 respondent 2) announced that it had acquired CycloneSEQ, which Oxford understands to be a reference to its purchase of 100 percent equity in respondent 3) on 9 March 2026 (see Exhibit ONT-25).
71. Respondent 4) has posted a LinkedIn Post on 14 May 2026 (see Exhibit ONT-10). The LinkedIn Post states explicitly that such services "are now available for early adopters in Europe with up to 50% discount!". In the Oxford's view it is plain therefore, that as of 19 May 2026 the Cyclone Platform, or services using the Cyclone Platform, are being made available in Europe. This is the first instance in Oxford's view, that they are aware of actual infringement or at the very least imminent infringement.
72. The Cyclone Platform is founded on the CycloneSEQ technology and described by the respondents as the CycloneSEQ platform. This is readily apparent from the G100-ER Brochure and the G400-ER Brochure. References within this application to the CycloneSEQ technology, CycloneSEQ Platform or simply CycloneSEQ should be understood to be applicable to all of the Cyclone Devices.
73. Oxford obtained, outside the EU, a CycloneSEQ-WT02 Sequencer, and its associated flow cells and reagents in or about May 2025 (see witness statement of [REDACTED] (see

Exhibit ONT-40). Oxford has inspected it and performed certain limited operations of the sequencer. The limited operation was to sequence DNA using the CycloneSEQ-WT02 Sequencer and its sequencing kits under normal operation. For this, a DNA library was prepared using the reagents provided with the Cyclone SEQ-WT02 Sequencer. However, after operating the sequencing protocol for 24 hours no sequencing data could be obtained. Oxford believes this was because the flow cells provided with the sequencer had been incorrectly stored during delivery and so were no longer suitable for use. As a check Oxford prepared a DNA library in accordance with the protocols and using the sequencing kits provided with the CycloneSEQ-WT02 Sequencer on Oxford's own flow cells and sequencer. Sequencing results were obtained. Following this, Oxford prepared a DNA library using the same DNA - but this time with Oxford's own reagents. Oxford then used this DNA library with its own sequencing buffer on the Oxford's flow cells and sequencer. Sequencing results were again obtained. The two sets of results were consistent with each other (including, for example, observing materially the same translocation speed) and supports, in Oxford's view, the fact that the technology in the Cyclone Platform is the same as in the Oxford's devices.

74. In essence, Oxford argues that both patents (EP 198 and EP 343) are valid and have been infringed or are about to be infringed imminently. Respondent 1) (short “MGI”) is responsible for acts of infringement, such as importing and possessing the infringing device on display in the YouTube video in Germany for the purposes of offering, placing on the market and using it. Furthermore, any infringement or threat of infringement by respondents 2) to 4) are attributable to respondent 1) by virtue of common design. Oxford did not unreasonably wait a long time before applying for provisional measures. The clock started ticking on 19 May 2026 when the General Counsel of Oxford became aware of the LinkedIn Post — the very first instance of advertising in the relevant jurisdictions reaching the threshold of imminent infringement. Previous communication by the respondents was limited to “selected” European states, without identifying them. Previous actions, such as the CE-mark approval, did not amount to an infringement or imminent infringement. A period of 5-6 weeks between becoming aware of the situation and filing the application on 26 June 2026 does not amount to an unreasonable delay. The intervening period was occupied by necessary investigative, legal, and technical workstreams, taking into account the smoke screen built by the respondents around their corporate structure and their activities. The requested relief is necessary to preserve the status quo of a one-player market and prevent it from becoming a two-player market, as well as to ward off the danger of price erosion. Respondents are already offering the patented process at a 50 per cent discount as set out in the LinkedIn post.
75. Oxford provided the following infringement read for EP 198 [figures and pictures are not reproduced; reference is made to exhibits ONT-51 and ONT-52]:

1.1	A method of sensing an interaction of a molecular	The CycloneSEQ WT Sequencing Kit Manual states that the technology " <i>uses nanopore single-</i>
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	entity with a membrane protein in a lipid bilayer (26) or layer of other amphiphilic molecules, the method comprising:	<i>molecule sequencing technology. This technology is based on the fact that double-stranded DNA, guided by motor proteins, passes through nanopores fixed on an electrically insulating membrane in single-stranded form".</i> In this context the single-stranded DNA (being the unzipped target double-stranded DNA) equates to the 'molecular entity' required by claim 1. This is also described in the BGI Paper. The nanopore referred to in the CycloneSEQ WT Sequencing Kit Manual equates to the 'membrane protein' required by claim 1. This is also described in the BGI Paper which states " <i>a nanopore, which can be either a protein or solid-state structure, embedded in a membrane</i> ". The BGI Paper further explains that the " <i>membranes are selfassembled in a bilayer form via lipid molecules</i> ". This equates to the 'lipid bilayer' required by claim 1. The single stranded DNA interacts with the nanopore by passing through it – again see the references above. As such integer 1.1 is met by the Cyclone Platform.
1.2	providing a sensor device (2)	Each flow cell can be considered the 'sensor device'. In particular, the BGI Paper at Figure 4 describes and depicts a " <i>sensor unit</i> ". This sensor unit is also referred to as a " <i>sensor chip</i> ". ³⁷ A copy of Figure 4 of the BGI Paper is reproduced below as Figure 3. As such integer 1.2 is met by the Cyclone Platform.
1.3	comprising an array of sensor elements	The technology of the Cyclone Platform is stated in the BGI Paper to " <i>rel[y] on a sensor chip designed with arrays of microwells</i> " which " <i>contain microelectrodes at the bottom of each well</i> ". An array of microwells equates to an 'array of sensor elements' required by the integer. The BGI Paper also describes and depicts in Figure 3 the sensor array. As such integer 1.3 is met by the Cyclone Platform.
1.4	each arranged to support a lipid bilayer (26) or layer of other amphiphilic molecules in which a	From the BGI Paper it is shown that the microwells in the sensor chip " <i>support membrane arrays</i> ". In operation, " <i>biological nanopores are inserted into the membrane arrays that are uniformly formed on the sensor chip. The</i>

	membrane protein is capable of insertion	<i>membranes are self-assembled in a bilayer form via lipid molecules</i> ". ⁴¹ A biological nanopore equates to 'a membrane protein'. As such integer 1.4 is met by the Cyclone Platform.
1.5	and including respective electrodes (22),	The BGI Paper describes that the microwells in the Cyclone sequencer sensor chip contain " <i>microelectrodes</i> ". As such, integer 1.5 is met by the Cyclone Platform.
1.6	each sensor element being arranged to output an electrical signal at the electrode that is dependent on an interaction of a molecular entity with a membrane protein in a lipid bilayer (26) or layer of other amphiphilic molecules	The microelectrodes in the microwells detect " <i>ionic current disruptions caused by nucleotide sequences moving through the pore</i> ". Further, "[e]ach nanopore is electrically connected to electrodes that precisely measure the ionic current disruptions caused by nucleotide sequences moving through the pore". The electrical signal is necessarily dependent on the interaction with the nucleotide sequences (i. e. the 'molecular entity') with the nanopores (i. e. a 'membrane protein in a lipid bilayer'). As such, integer 1.6 is met by the Cyclone Platform.
1.7	with a quality of performance that is variable depending on whether a membrane is formed and on the number of membrane proteins inserted; characterised by the steps of:	The ability to detect " <i>ionic current disruptions caused by nucleotide sequences moving through the pore</i> " is necessarily dependent on a membrane array being formed on the microwell and on the number of nanopores inserted into the membrane. In use, a channel status panel could be seen on the display on the computer monitor, shown below in Figure 6. This channel status panel displays a real-time readout of, amongst other things, the operational state of every individual microwell on the flow cell. If only a membrane is present in an individual microwell (i.e. without a nanopore inserted) a current of 0 is measured and " <i>none</i> " is displayed on the channel status panel. No sequencing results are obtained. This is because the membrane on its own acts as an insulator preventing the flow of current. When the microwell has no membrane at all the readout goes to saturation. When the microwell contains at least one nanopore i. e. membrane protein inserted in the membrane a measurable readout is indicated on the display as " <i>sequencing</i> ", " <i>available</i> " and " <i>multiple</i> ". As

		such, the quality of performance is variable depending on whether a membrane is formed and on the number of membrane proteins inserted. The BGI Paper supports the fact that the sequencing system associated with the Cyclone Platform is carrying out the exact process described above, namely that the software identifies the number of effective nanopores. In particular, it states that "[s]ubsequently, we mount flow cells in the socket of the CycloneSEQ sequencer and perform a chip self-check. After the self-check process, the system indicates whether the chip meets the quality criteria and the number of effective nanopores on each individual chip". As such, integer 1.7 is met by the Cyclone Platform.
1.8	providing a detection circuit (3) comprising a plurality of detection channels (30) each capable of amplifying an electrical signal from one of the sensor elements,	The CycloneSEQ WT Sequencing Kit Manual states "[w]hen different bases pass through the nanopore, they trigger changes in the ion current in the nanopore. These changing electrical signals are detected and amplified, and then processed by a dedicated algorithm to ultimately generate high-precision sample sequence information". The BGI Paper describes "a signal acquisition application-specific integrated circuit (ASIC)" that is used for signal acquisition. The ASIC will necessarily comprise a detection circuit to measure the ionic current disruptions that are caused by nucleotides moving through the pore. The detection circuit receives electrical signals from multiple nanopores therefore there is necessarily a plurality of detection channels. As such, integer 1.8 is met by the Cyclone Platform.
1.9	the number of sensor elements in the array being greater than the number of detection channels (30);	When running the software provided with the Cyclone sequencer the computer system identifies: the use of four sensor groups; and the switching between each sensor group. Each of the microwells (i.e. the 'sensor elements') are grouped into four sensor groups (identified as A, B, C and D). Each small coloured square represents a sensor element. It can be seen from the figure below that each rectangular grid is 16 x 64 (i.e. 1024) which gives a total number of

		microwells as 4096 which aligns with the G100-ER Brochure. The status of each relevant microwell (as shown below the sensor groups in Figure 6) is described as follows: a. "Sequencing" – which is understood as meaning one nanopore inserted into a lipid bilayer within the microwell, and strand interacting with nanopore; b. "Available" - which is understood as meaning one nanopore inserted into a lipid bilayer within the microwell, and strand not interacting with nanopore; c. "Saturated" – which is understood as meaning no lipid bilayer formed within the microwell; d. "Multiple" – which is understood as meaning more than one nanopore inserted into a lipid bilayer within the microwell; and e. "None" – which is understood as meaning no nanopore inserted into a lipid bilayer within the microwell. The Cyclone sequencer performs a decision step known as a MUX ('multiplexing') scan which tests the microwells to identify which specific nanopores are viable. This involves switching between sensors. This is identified by the readouts provided by the Cyclone sequencer shown below in Figures 5 and 6 below. The display also provided the information reproduced in Figure 7 below, in respect of what is described in the BGI Paper as the "<i>chip self-check</i>". The readouts shown below under the "Available pores" column identifies that 59 microwells with one nanopore inserted in the lipid bilayer within each microwell are present (out of a possible 4096 microwells having that arrangement). This is described as 'Initial SinglePore'. The 4096 microwells as explained above are split into four sensor groups each containing 1024 microwells. In this instance the array in total has 59 single nanopores out of a
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		possible 4096 and the readout identifies that within one sensor group there are 9 single nanopores out of a possible 1024. This is described as 'Current SinglePore'. The "<i>chip self-check</i>" carries out MUX scans as demonstrated by Figure 5 above. MUX scans are scans of each sensor group to evaluate the microwells to identify the most effective nanopores. As discussed below in relation to Figure 8 the switching between sensor groups A, B, C and D is shown. The switching enables the system to ascertain which sensor group has the greatest number of suitable microwells (i.e. a microwell with one nanopore inserted in the lipid bilayer). The Applicant's own technology also uses a MUX scan to select the sensor groups with the greatest number of suitable microwells available. Upon running the sequencer, the software provides the readouts in Figure 8 below, identifying in particular the switching between the four sensor groups. This can be identified by the "<i>Step:Switch</i>" lines of the code below. As explained in Figure 6 above there are 4096 microwells which are divided into four sensor groups having 1024 microwells. The software reads the data from 1024 microwells at a time which is consistent with there being 1024 detection channels. Given there are 4096 microwells there are more sensor elements than detection channels. This is consistent with the Applicant's own technology which similarly uses a 4:1 ratio of sensor elements: detection channels. EP 198 provides an explicit example of a sensor device which comprises "<i>4096 wells...and 1024 detection channels</i>" (see paragraph [0022]). The G100-ER Brochure similarly identifies each flow cell as comprising 4096 nanopores⁵¹ which aligns with the number of coloured squares provided in Figure 6 above. As such integer 1.9 is met by the Cyclone Platform.
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1.10	providing a switch arrangement (31) capable of selectively connecting the detection channels (30) to respective sensor elements; and	As explained above, in particular as shown in Figures 5-8, the use of the CycloneSEQ-WT02 software identifies a switching arrangement which allows the device to selectively connect the detection channels to the respective sensor elements by switching between sensor groups. As such integer 1.10 is met by the Cyclone Platform.
1.11	controlling the switching arrangement (31) to selectively connect the detection channels to respective sensor elements in respect of which a lipid bilayer (26) or layer of other amphiphilic molecules is formed and an acceptable number of effective membrane proteins are inserted, on the basis of the amplified electrical signals that are output from the detection channels (30).	Figure 6 above shows that, in use, the CycloneSEQ-WT02 detects the state of each microwell including microwells identified as "multiple", "saturated" and "none". These are microwells which are not suitable for sequencing or in the case of "multiple" not optimal for sequencing. It also identifies the effective microwells. This is consistent with the BGI Paper which describes the self-check process where the system indicates " <i>the number of effective nanopores</i> ". As above, it can be seen from the testing of the CycloneSEQ-WT02 that the software provides a switching functionality. It can therefore control the switching arrangement based on the number of effective nanopores within each sensor group to selectively connect the detection channels to respective sensor elements in respect of which a lipid bilayer or layer of other amphiphilic molecules is formed and an acceptable number of effective membrane proteins are inserted, on the basis of the amplified electrical signals that are output from the detection channels. As such integer 1.11 is met by the Cyclone Platform.
7.1	An apparatus (1) for sensing of an interaction of a molecular entity with a membrane protein in a lipid bilayer (26) or layer of other amphiphilic molecules, the apparatus comprising:	The CycloneSEQ-WT02 is supplied as a kit of components, including (among other things) a sequencing device, flow cell and reagents. Plainly the Cyclone Platform comprises an apparatus. The analysis set out for integer 1.1 above applies equally here. As such integer 7.1 is met by the Cyclone Platform.
7.2-7.11		Reference is made to the analysis of the method claim above.

76. Oxford provided the following infringement read for EP 343 [figures and pictures are not reproduced; reference is made to exhibits ONT-51 and ONT-52]:

1.1	A method for determining the presence, absence or characteristics of an analyte	Use of the Cyclone Devices involves determining the presence, absence or characteristics (e.g. sequence) of an analyte (e.g. the single-stranded DNA being the unzipped target double-stranded DNA). The observations provided at integer 1.1 of EP 198, are repeated. As such integer 1.1 is met by the Cyclone Platform.
1.2	comprising (a) coupling the analyte to a membrane comprising a detector wherein the analyte is not coupled to the membrane via	As explained above, the membrane comprises a detector (i.e. a nanopore). The CycloneSEQ-WT02 involves coupling the analyte to a membrane via tethering. The explanation that follows is based on observations from running the CycloneSEQ-WT02. The CycloneSEQ-WT02 was provided with a "CycloneSEQ WT Sequencing Kit" which contained a reagent labelled "incubation buffer". See Figure 9 as follows: As explained above, a DNA library was prepared in accordance with the protocols and using the sequencing kits provided with the CycloneSEQ-WT02 Sequencer on the Applicant's own flow cells and sequencer. Three separate runs were then carried out. A 'Control' run where the sequencing protocols were followed, a 'Boiled' run where the incubation buffer was boiled prior to sequencing and a 'Delayed addition' run where the incubation buffer was left out of the run for a period of time before adding. In the 'Delayed addition' run a barely detectable readout of bases per channel per minute was observed until the incubation buffer was added, shown by the dashed line below. This shows that certain components of the incubation buffer are required to facilitate sequencing. See Figure 10 as follows:

		Motor proteins can be used to facilitate sequencing by slowing the polynucleotide down in a controlled manner so that it doesn't translocate through the pore too quickly. In order to identify whether the incubation buffer contained a motor protein the incubation buffer was boiled before running. Under boiling a motor protein would denature and therefore no sequencing should be possible. However, as shown in Figure 10 above, the effect of the incubation buffer was not destroyed by boiling it. This identifies that the incubation buffer did not contain a motor protein. A tether, as described in EP 343, would survive boiling and retain its functionality of drawing the analyte towards the pore to facilitate sequencing. As such it is more likely than not that the Cyclone Platform contains a tether. As additional support, note the following. The CycloneSEQ Universal Library Preparation Reagent Set Manual provided with the CycloneSEQ WT-02 sequencer obtained describes the 'Product Information' as "<i>H940-000013 CycloneSEQ Universal Library Preparation Kit</i>".⁵² WO 028, of which the Third Defendant is the proprietor states that "<i>[l]ibraries were prepared using the H940-000013CycloneSEQ universal library preparation kit</i>". This is the same description as the library preparation kit provided with the CycloneSEQ-WT02. WO 028 explicitly describes the use of a tether and provides the sequence identity as TTGACCGCTCGCCTC. Further, a DNA based hybridised tether with a hydrophobic anchor is consistent with the observed results from the CycloneSEQ-WT02 as described above. Cholesterol is a well-known hydrophobic anchor for DNA coupling to membranes and not proteins such as nanopores (in this context a detector). As such integer 1.2 is met by the Cyclone Platform.
1.3	and (b) allowing the analyte to interact with	As already referred to above, the CycloneSEQ WT Sequencing Kit Manual at 1.2 states that

	the detector present in the membrane	the CycloneSEQ-WT02 <i>"uses nanopore single-molecule sequencing technology. This technology is based on the fact that double-stranded DNA, guided by motor proteins, passes through nanopores fixed on an electrically insulating membrane in single-stranded form"</i> . This is the analyte interacting with the detector (nanopore) present in the membrane. See the discussion at integer 1.1 above. Similarly, the G100-ER Brochure identifies states <i>"motor proteins situated near the nanopore proteins entrance, steadily and rapidly unwind the DNA. This allows the DNA libraries to pass through the nanopore as a single strand. Different DNA bases and their arrangement impede the current to varying degrees, triggering the current fluctuations. The channel sensor captures these current fluctuation data"</i> . As above, this is the analyte interacting with the detector (nanopore) present in the membrane. As such integer 1.3 is met by the Cyclone Platform.
1.4	and thereby determining the presence, absence or characteristics of the analyte.	As already explained in the first paragraph of integer 1.6 of EP 198 above, there is a disruption in the electric current based upon the different interaction of bases as the polynucleotide passes through the nanopore. This data is then transmitted to a computer system where basecalling algorithms convert the information into real-time gene sequencing. This is provided in similar terms in the CycloneSEQ WT Sequencing Kit Manual which states <i>"When different bases pass through the nanopore, they trigger changes in the ion current in the nanopore. These changing electrical signals are detected and amplified, and then processed by a dedicated algorithm to ultimately generate high precision sample sequence information"</i> . As such integer 1.4 is met by the Cyclone Platform.

77. In essence, respondent 1) (short “MGI”) argues that EP 198 and EP 343 are both invalid. In any case, EP 343 is not infringed. The four respondents are all separate legal companies. The actions of one cannot be attributed to another. There is no common design to infringe both patents together. The website showing the Cyclone Platform is not directed to the European market and the website directed to the European market is not showing the Cyclone platform. In any case, Oxford either filed too early or too late. Either there is no threat of imminent infringement, or Oxford waited too long after becoming aware of infringing activities. Oxford should have discovered the YouTube video long ago. In any event there is no threat of infringement regarding the long-arm jurisdiction territories as the regulatory requirements for offering the devices and services of the Cyclone Platform relevant in those territories have not yet been met. Injunctive relief is not necessary because Oxford cannot demonstrate any loss of profits resulting from MGI's activities to date. In any event, Oxford shall pay security of at least € 500,000 for provisional enforcement.

78. Oxford counterargues that the regulatory requirements can be met effortlessly in a short period of time and that the preconditions for ordering a security for enforcement have not been pleaded by respondent 1).

FORMAL RELIEF SOUGHT BY THE PARTIES

79. Oxford asks for the following formal relief:

Respondents 1) ~~to 4)~~ are

1. Ordered to refrain from in Denmark, France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, from making, offering, placing on the market or using, or importing or storing for those purposes

(i) the CycloneSEQWT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or any other sequencer embodying materially the same sequencing technology;

(ii) flow cells for use with such devices described in (i); and/or

(iii) kits (including sequencing flow cells, sequencing kits and flow cell wash kits) for use with such devices described in (i).

Alternatively,

2. Ordered to refrain from, in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, infringing EP 198.

3. Ordered to refrain from, in France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, infringing EP 343.

Alternatively,

4. Ordered to refrain from, in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, infringing claims 1 and 7 of EP 198.

5. Ordered to refrain from, in France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, infringing claims 1 and 13 of EP 343.

Alternatively,

EP 198

6. Ordered to refrain from directly infringing claim 7 of EP 198, in particular by making, offering, placing on the market, using, or importing or storing for the aforementioned purposes in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.

7. Ordered to refrain from directly infringing claim 1 of EP 198 by using in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, or offering without the consent of the Applicant, for use within these territories, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.

8. Ordered to refrain from indirectly infringing claims 1 and 7 of EP 198 by supplying and/or offering to supply, without the consent of the Applicant, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without a flow cell incorporated) or any other sequencer embodying materially the same sequencing technology and/or flow cells for use in such devices within Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom for use within these territories.

EP 343

~~9. Ordered to refrain from directly infringing claim 13 of EP 343 particularly by making, offering, placing on the market, using, or importing or storing for the aforementioned purposes in France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom,~~

~~(i) kits (including sequencing flow cells, sequencing kits and flow cell wash kits) for use with the Cyclone Devices or any other sequencer system embodying materially the same sequencing technology and/or~~

~~(ii) the Cyclone Devices or any other sequencer embodying materially the same sequencing technology.~~

10. Ordered to refrain from directly infringing claim 1 of EP 343 by using in France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, or offering without the consent of the Applicant, for use within these territories, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.

~~11. Ordered to refrain from indirectly infringing claim 13 of EP 343 by supplying and/or offering to supply, without the consent of the Applicant, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (without a flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology and/or flow cells for use in such devices within France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom for use within these territories~~

And,

12. Ordered to deliver up to a bailiff appointed by the Applicant, at its own expense, any cyclone devices (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells and kits (including sequencing flow cells, sequencing kits and flow cell wash kits) for use with said cyclone devices and/or in stock and/or otherwise

held, owned or in the direct or indirect possession of the Defendants in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom, in order to prevent their entry into or movement within the channels of commerce.

13. Ordered to provide the Applicant, within two (2) weeks after service of the upcoming order rendered, with a written statement, substantiated with appropriate documentation of:

- the quantities of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells manufactured, imported and/or stored by the Defendants in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom;
- the origin of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells, including the full names and addresses of the legal entities that are involved in the supply to the Defendants of the said cyclone devices, and the amounts of the said cyclone devices supplied to the Defendants by each of those entities in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom; and
- any orders for the supply of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencer embodying materially the same sequencing in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom, that have been received, including the full names and addresses of the legal entities that placed said orders, the sales price and the exact quantities of the said cyclone devices ordered in each case.

14. Ordered to comply with the order subject to a recurring penalty payment of € 70,000.00 for each infringing product in any territory of Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and/or the United Kingdom which results in violation of, or each violation of, or non-compliance with every granted injunction, plus up to € 20,000 for each subsequent day, a part of a day counting as an entire day, that the violation or non-compliance continues.

15. Ordered to pay the legal costs of the proceedings.

16. These orders shall be effective and enforceable immediately.

80. Respondent 1) (short "MGI") asks for the following formal relief:

1. The Application is dismissed.
2. The Applicant is ordered to bear the costs of the proceedings.
3. The Court orders an interim award of costs in favour of the Respondent 1) in the amount of 50% of the costs ceiling, i.e. 28,000 EUR, or such amount as the Court considers reasonable and proportionate.
4. In the alternative, if provisional measures are granted, enforcement shall be conditional upon the Applicant providing adequate security under Rule 211.5 RoP in an amount sufficient to compensate the Respondent 1) for likely injury if the measures are later revoked or found unfounded.

GROUND

Summary of the outcome

81. The proceedings against respondents 2) to 4) are to be separated. The application for provisional measures is admissible, as it was filed without undue delay. The application against respondent 1) (short “MGI”) is well founded, including the relief sought for long-arm territories (CH, IR, LI and UK). In view of the arguments brought forward by MGI, the two patents (EP 198 and EP 343) that are still subject to the application are more likely to be valid than invalid. Both patents are more likely to have been infringed than not. Respondent 1) has infringed the patents itself. Additionally, acts of infringement and behaviour that trigger a threat of infringement committed by respondents 2) – 4) can be attributed to respondent 1) due to a common design. Oxford has demonstrated that there is at least an imminent threat of patent infringement arising from this common design. The measures requested by Oxford are necessary and proportionate to freeze the status quo, characterised by a one-player market in the countries concerned, and ward off the danger of price erosion. No security for enforcement is warranted.

Technical Background

82. The Patents in suit relate to DNA sequencing technology and more particularly what is referred to as nanopore sequencing which is part of what is generally referred to as Third Generation Sequencing.

83. DNA sequencing is the process of determining the precise order of the four nucleotide bases - adenine (A), cytosine (C), guanine (G), and thymine (T) - that constitute a strand of deoxyribonucleic acid ('DNA'). A strand of DNA is made up of a sequence of different combinations of these four bases, and the specific sequence in which they are arranged conveys genetic information indispensable in numerous fields including virology, biotechnology, and medical diagnosis. Understanding the sequence of an organism's genome has become one of the most transformative capabilities in modern biology and medicine, enabling advances in areas as diverse as oncology, rare disease diagnostics, infectious disease surveillance, forensic science, and personalised medicine.

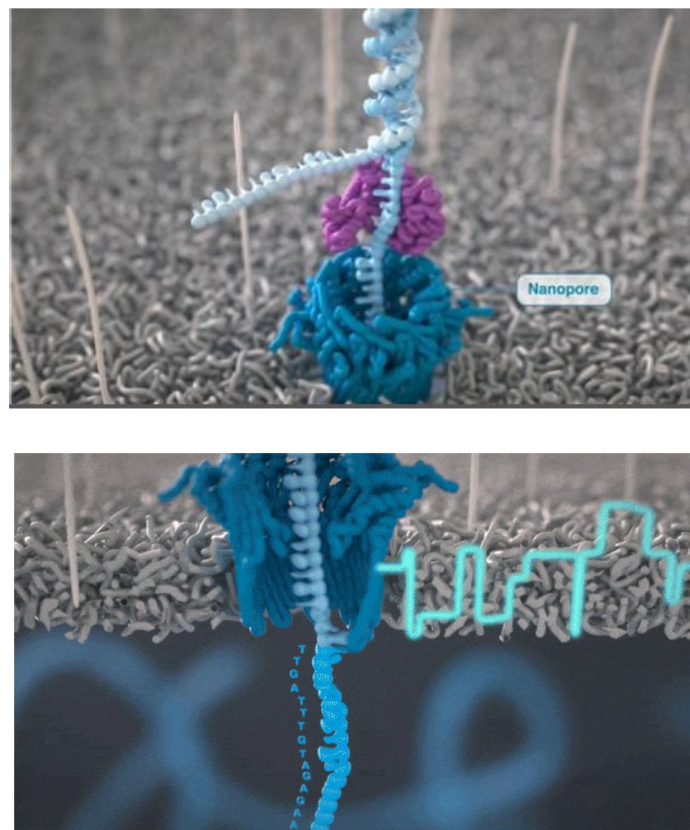
84. The technology of DNA sequencing has evolved. Nanopore sequencing is a particular method of sequencing. It is sometimes referred to as a “fourth generation” sequencing method. It is a distinct approach to “first generation”, “second generation” and “third generation” sequencing methods.

85. Both the first-and second-generation methods rely on the use of a naturally occurring enzyme called a polymerase, the function of which is to copy DNA inside cells, first to make synthetic copies of each starting strand of DNA, and secondly, for each copy, to make another synthetic copy where each synthetic nucleotide carries a chemical label (e. g.,

fluorescent) specific to each type of nucleotide. Then, the measurement process involves measuring the labels, typically using illuminating light (e.g., lasers) and a camera. In the second copy/measure step, for these two generations of sequencing methods, the polymerase can only add one nucleotide to the synthetic strand – i. e., the process is 'terminated'. These methods are known as 'Sequencing By Synthesis' or "SBS" and they require fixing the DNA to a chip surface, then applying a cyclical fluidic process of adding a nucleotide, taking a measurement, removing the termination, adding a second nucleotide, and so on.

86. A third-generation sequencing method was developed by Pacific Biosciences of California, Inc ("PacBio") in the late 2000s and was launched in 2010. This method also uses SBS, with the difference that the polymerase process is not terminated and the enzyme can freely copy the DNA of interest. In this method, an array of individual polymerases is fixed to the surface along with the DNA strand for each polymerase. Each polymerase is then measured continually as it creates a labelled copy. It enabled long read sequencing. The PacBio machines are physically large and complex systems designed for high precision optical detection.
87. Oxford say that they developed a fundamentally different approach to DNA sequencing which represents a completely unique offering to the market. It does not use SBS. It determines the sequence of DNA molecules as they are threaded through a small protein nanopore embedded in an electro-resistant membrane. It is this technology that, so Oxford says, the respondents are infringing, giving rise to this application.
88. Nanopore sequencing uses an array of tiny holes (i. e. "nanopores") embedded in an electro-resistant membrane. The membrane is surrounded by an electrolyte solution, and the nanopore allows electrolytes to pass through it and, therefore, the membrane. Each nanopore corresponds to its own electrode connected to a detector channel, which measures the electric current that flows through the nanopore. When a voltage is applied across the nanopore channel, a specific electric current flows through it. When a molecule (such as a DNA/RNA sequence) passes through the nanopore, the current is disrupted. As the DNA/RNA sequence passes through the nanopore, it causes specific, characteristic disruptions to the current, which enables the sequence of nucleotide bases in the DNA/RNA sequence to be identified in real time:
89. Further, Oxford says that Oxford's devices are based around a core sensing unit — a nanopore set in an arrayed sensor chip - used alongside a bespoke Application-Specific Integrated Circuit (ASIC), which controls and measures the experiments.
90. A video depicting how nanopore sequencing works is available at https://www.youtube.com/watch?v=VxGliKyYuFQ&list=PLxpxXZjlgXy1HCVBIDY8JzzzSSXo4c_j.

91. Oxford's own website (<https://nanoporetech.com/platform/technology>) also provides a further summary of how nanopore sequencing works. Through application of a voltage, an ionic current is passed through a nanopore (in dark blue) embedded in the grey co-block polymer membrane. The white, hair-like structures (which are shown extending vertically upwards from the membrane) are called “tethers” and they interact with the DNA strand to locate it in the co-block membrane near the nanopore, preventing it from freely floating in the solution. A motor protein, in purple, unwinds the DNA strand and controls the speed at which the single strand of DNA is passed through the nanopore. As the DNA strand passes through the nanopore, the nucleobases of the DNA disrupt the ionic current that is flowing through the nanopore, producing the squiggle and enabling them to be sequenced:



92. The “long-read” sequencing technology provides significant benefits over other methods which are based on “short-read” sequencing that existed and were generally used before the advent of nanopore and other “long-read” sequencing technology. Two such advantages are:
- Traditional DNA/RNA sequencing methods based on short-read sequencing are only able to sequence short lengths of DNA/RNA which had been fragmented from native DNA/RNA samples and must then be reassembled (hence the terms 'short-read' and 'long-read'). Nanopore sequencing is limited only by the length of the DNA/RNA fragment provided for sequencing, and can therefore span

entire repetitive regions, resolve structural variants, and differentiate between different isoforms (i.e. variant forms of a DNA gene sequence that encode the same protein). Nanopore sequencing is not limited by read lengths.

- b. Traditional methods require amplifying the quantity of the sample polynucleotide in order for the sequencing to take place. This is done by a process called polymerase chain reaction (PCR), which produces multiple copies of the polynucleotide. However, PCR can introduce biases and does not reproduce certain modifications that can be present in the bases, such as methylation. Nanopore sequencing does not require amplification and so overcomes these limitations.

93. A further important and wholly unique feature of Nanopore sequencing is its ability to directly sequence native DNA/RNA molecules without any prior conversion step. All other sequencing platforms to date, including both Illumina and PacBio require DNA/RNA to be first reverse-transcribed (synthesised) into complementary DNA (cDNA) before sequencing can take place. This reverse transcription step is not merely a technical formality; it introduces systematic amplification artefacts which by its nature will introduce errors. The resulting cDNA sequence is an indirect, imperfect proxy for the original DNA/RNA and so any sequencing cannot be a true reading of it.

94. Nanopore direct sequencing overcomes all these limitations. Because the nanopore reads the native DNA/RNA strand itself as it passes through the pore rather than a synthetic copy - it preserves the full-length molecule intact and captures information that is simply invisible to cDNA-based approaches.

95. This capability has become particularly significant in the context of mRNA therapeutics and vaccine manufacturing. mRNA is highly unstable and synthetic. As a result, the production of mRNA vaccines, such as those developed for COVID-19, requires rigorous quality control testing to confirm sequence identity, integrity, and purity. Regulatory authorities increasingly require comprehensive characterisation of mRNA products and Oxford's direct sequencing is the first and only commercially available approach that can sequence the native mRNA molecule directly. In May 2026, so Oxford says, Lonza and Oxford launched a direct RNA sequencing solution for mRNA quality control, which combines nanopore sequencing with machine learning to measure multiple critical quality attributes in a single workflow. The solution is built on Oxford's direct sequencing technology using its GridION platform. This approach can reduce QC testing from weeks to less than one day and is designed to be sequence-agnostic and scalable across different mRNA products.

96. Oxford says that the use of Oxford's nanopore sequencers requires a number of separate components, each of which is supplied by Oxford to its customers. These components include the following:

- a. sequencing devices, which connect to a computer (or iPad) to analyse the sample that is loaded into a flow cell (discussed below). Oxford supplies different sequencing devices, which vary in their size and functionality, including the following:
 - i. MinION, a portable palm sized sequencing device;
 - ii. GridION, a compact benchtop sequencing device;
 - iii. PromethION, a large-scale benchtop sequencing device; and
 - iv. ElysION, a fully automated sequencing device;
- b. flow cells, which are integral components that are connected to the sequencing device and are where the user loads the prepared DNA/RNA samples for analysis. They contain the wells comprising the membrane into which one or more nanopores (in each well) has/have been inserted, in addition to certain circuitry and other components. Oxford supplies different flow cells depending on the sequencing device and use case;
- c. library preparation kits, which are used to prepare DNA/RNA samples for sequencing using Oxford's sequencing devices. The prepared samples are referred to as "libraries". Oxford supplies different library preparation kits depending on the type of DNA/RNA sample, sequencing device and use case; and
- d. other consumables, including additional equipment and reagents used to prepare DNA/RNA samples for sequencing.

97. Exhibit ONT-27 is a brochure produced by Oxford depicting a range of its products. Among other matters, this document includes a visual overview of nanopore sequencing (pp 8-9), a range of library preparation kits offered by Oxford (pp 14-15), and the MinION, GridION, PromethION and ElysION devices including their flow cells (pp 16-25).

Claim Construction of EP 198

98. EP 198 addresses the inefficiency and cost of large-scale sensor arrays, in which each sensor element comprises a lipid bilayer or a layer of other amphiphilic molecules with a membrane protein inserted. In practice, however, many sensors inevitably fail, resulting in variable performance quality. The solution proposed in EP 198 is an array with more sensor elements than detection channels (i. e. redundancy), as well as a controller that identifies functional sensors based on their electrical signals. This controller then selectively connects the limited number of detection channels to the identified functional sensors.

99. EP 198 is entitled "*Lipid Bilayer Sensor Array*" and relates to the detection of the interaction of a molecular entity with a membrane protein inserted in a lipid bilayer using sensor

elements (paragraph [0001]). The specification explains that while the basic principles of nanopore sensing are well established, a particular constraint is that the electrical signals are very small in magnitude and occur over a very short time, because the interactions involve a single molecular entity. As a result, typically a separate detection channel is required for each sensor element, which creates significant cost penalties when scaling to large arrays (paragraphs [0004]–[0005]). It is stated as desirable for commercial applications *"to develop a technique that allows detection of interactions of relatively large numbers of molecular entities using an array of sensor elements, but at relatively low cost"*, see [0006].

100. The specification recognises that when a sensor device is prepared with an array of sensor elements, individual sensor elements will have different quality of performance in the formation of a lipid bilayer or amphiphilic layer, or in the number of membrane proteins that are inserted. Some are unable to detect the physical event at all and some output a signal of differing quality (paragraph [0009]).
101. The invention addresses this variable quality of performance by providing a sensor array architecture in which the number of sensor elements is greater than the number of detection channels, to amplify the signal (paragraph [0010]). The invention describes the selective connection of detection channels to sensor elements that have acceptable quality of performance and thereby increases the efficiency with which the detection channels are used (paragraph [0010] - [0011]).
102. The specification explains that detection channels are typically more expensive to produce than sensor elements. This approach leads to an *"increase in the efficiency of utilisation of the detection channels"* which in turn *"leads to a corresponding reduction in the cost of the apparatus as a whole because less detection channels need to be provided."* (paragraph [0013]).
103. A further advantage of the invention is that the redundancy in the number of sensor elements, *"provides a greater degree of tolerance to variations in efficiency of the sensor elements and thereby maintains a more uniform overall efficiency"* (paragraph [0014]).
104. As illustrated in Figure 1 of EP 198, the apparatus (1) comprises a sensor device (2) connected to a detection circuit (3), which is in turn connected to a data processor (4).
105. As shown in Figure 2, the sensor device (2) has a body (20) in which there is formed a plurality of wells (21), each being a recess having a well electrode (22) arranged therein. The body (20) is covered by a hollow cover (23) which defines a chamber (24) into which each of the wells (21) opens. A common electrode (25) is disposed within the chamber (paragraphs [0016] - [0018]). A lipid bilayer (26) or layer of other amphiphilic molecules is formed across each well, and membrane proteins are inserted into the lipid bilayers from aqueous solution (paragraph [0019]).

106. As shown in Figure 3, the detection circuit (3) has a detection channel (30) associated with each group of wells (21). Figure 3 is purely schematic and depicts a single group of wells and a single detection channel, but typically there are a plurality of each. The apparatus further includes a switch arrangement (31) which is capable of selectively connecting the detection channel (30) to any one of the wells (21) in the group. The switch arrangement (31) comprises switches (32) connected between respective ones of the wells (21) and the detection channel (30). A latch (34) and decoder logic (35) control the switches (see paragraphs [0022] – [0025]). The specification gives the example that a sensor device might comprise a total of 4,096 wells and 1,024 detection channels (see paragraph [0022]).
107. In operation, the data processor (4) monitors the amplified signals output by each detection channel (30) and controls the switch arrangement (31) on the basis thereof. The data processor performs a "*sensor selection process*" in which the switch arrangement is controlled to connect the detection channel successively to each well, monitoring the amplified signal to determine whether a lipid bilayer is formed and the number of membrane proteins inserted. A well having acceptable quality of performance is thereby detected, and the switch arrangement is subsequently switched to connect the detection channel to that well. If during subsequent operation the quality of performance of a well ceases to be acceptable (e. g. by a second membrane protein inserting or an inserted protein separating from the bilayer), the switch arrangement is switched to connect the detection channel to a different well with acceptable performance (see paragraphs [0039] - [0045]).
108. The claimed method (claim 1) and claimed apparatus (claim 7) comprise, amongst other features, the following:
- a. An array of sensor elements (Feature 1.3/7.3).
 - b. Each sensor element has a quality of performance that is variable depending on whether a membrane is formed and on the number of membrane proteins inserted (Feature 1.7/7.7).
 - c. A detection circuit comprising a plurality of detection channels each capable of amplifying an electrical signal from one of the sensor elements (Feature 1.8/7.8).
 - d. The number of sensor elements in the array is greater than the number of detection channels (Feature 1.9/7.9).
 - e. Controlling the switching arrangement to selectively connect the detection channels to respective sensor elements in respect of which a lipid bilayer or layer of other amphiphilic molecules is formed and an acceptable number of effective membrane proteins are

inserted, on the basis of the amplified electrical signals that are output from the detection channels (Feature 1.11/7.11).

109. The skilled person is an individual or team of individuals with sequencing experience.
110. The skilled person understands that such sensor elements may, for example, lack a membrane or lack any membrane proteins inserted into the membrane. Other sensor elements are or are potentially acceptable. There is accordingly a variability in the quality of performance of the sensor elements, a collection of which are contained in a sensor device. This quality of performance is not simply an inherent quality of sensor elements. It is a technical limitation of the claimed method and is discussed in paragraph [0021] of EP 198:

[0021] However the quality of performance of the wells 21 as sensor elements is variable. The lipid bilayer might not form meaning the well 21 has no performance, although in practice high efficiency of formation is achievable. More significantly, the variation in the number of effective membrane proteins inserting into the lipid bilayer affects the quality of performance. Clearly if no membrane protein inserts the well 21 has no performance. The quality of performance may also be variable with the number of effective membrane proteins inserting. Sometimes there may insert a membrane protein that is not effective for the desired stochastic sensing, for example because it is denatured. In general the number of effective membrane proteins that are acceptable depends on the type of stochastic sensing being performed. In the example below, acceptable quality of performance is the insertion of a single effective membrane protein, with plural membrane proteins being unacceptable. In other situations, insertion of plural effective membrane proteins may be acceptable.

111. The skilled person will further understand that the presence of "failed" or non-ideal sensor elements is due to statistical variation in the number of membrane proteins (e. g. nanopores) that insert into individual lipid bilayers (see paragraph [0011] of EP 198) as this is described in paragraph [0047].

The insertion of membrane proteins into a lipid bilayer 26 is a random process that follows Poisson statistics. This means that even when the average number of membrane proteins per well 21 is one, a significant number of wells 21 may have none, two or more membrane proteins inserted, and these wells 21 are then not useful. For example, it is found that in a particular embodiment the maximum probability for finding just one membrane protein in a well 21 is about 36%, and this is only achieved if conditions are optimal. A greater or lesser membrane protein concentration quickly results in a reduction of useable wells 21 (especially a lesser exposure). Current estimates for efficiency which is likely to be achieved in practical embodiments are about 20%.

112. Rather than seeking to improve performance by eliminating or reducing the number of failed sensor elements, the inventors provide an electronic solution that allows for multiplexing despite the presence of failed sensor elements. Compared with the number of sensor elements, the invention advantageously reduces the number of detection

channels (Feature 1.9/7.9), thereby reducing the cost of multiplexing, as the detection channels are more expensive (paragraph [0013] of EP 198). It also reduces the electronic footprint of the device. The invention therefore accepts the presence of failed sensor elements and provides a way to avoid using them, thus reducing 'noise' in the signal-to-noise-ratio by selectively connecting the detection channels to the sensor elements on which an acceptable number of effective membrane proteins have been inserted and a lipid bilayer or layer of other amphiphilic molecules has formed (Feature 1.11/7.11).

113. Although the wording of item e) is somewhat confusing, a skilled person would understand that the sensor elements are connected to the detector channels for two purposes: first, to analyse the amplified electrical signal and determine the status of an individual sensor element; and second, if the status is satisfactory, to analyse the amplified electrical signal from that sensor element further, in order to detect an interaction between a molecular entity (the analyte) and a membrane protein in a lipid bilayer or layer of other amphiphilic molecules formed in that sensor element. Thus, only amplified electrical signals from sensor elements with a satisfactory status are further analysed. This reduces the number of detection channels needed for listening (analysing). Furthermore, the 'noise' in the amplified electrical signal is reduced. This provides a better listening (analysing) experience.

Validity of EP 198

114. In view of the arguments brought forward by MGI, EP 198 (Claims 1 and 7) is more likely to be valid than invalid.

MGI's position

115. MGI argues that EP 198 is invalid for lack of inventive step. Their central thesis is that the claimed invention is an obvious combination of elements known from the prior art and common general knowledge (CGK) at the time. They construct their argument using several different "starting points":
116. AOS 4-A8 (Bennati et al.): This document already discloses a compact, low-cost system with more sensor elements (12) than detection channels (3) and a switching mechanism. MGI argues it would have been obvious for a skilled person to combine this with the CGK that sensors can fail and that their functionality can be determined from their electrical signal, thus leading to the claimed selective connection (Objection, para. 146 - 148; Rejoinder, paras. 198 - 228). Below is a reproduction of Fig. 1 of AOS 4-A8 (Bennati), showing the system architecture with a 4x3 sensor matrix connected to three concurrent detection channels ("Preamplifiers" and "AD Converters"), one for each row:

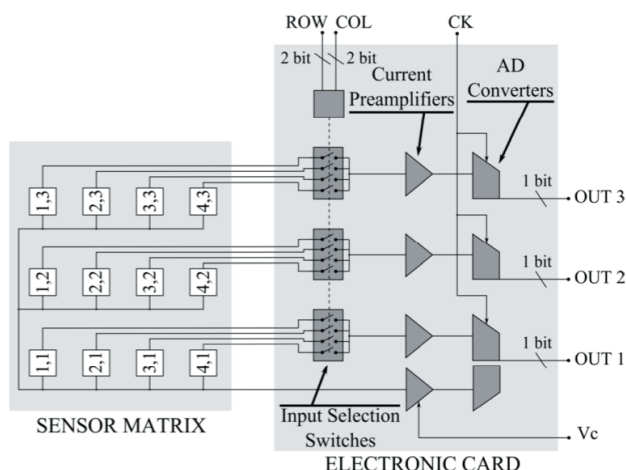
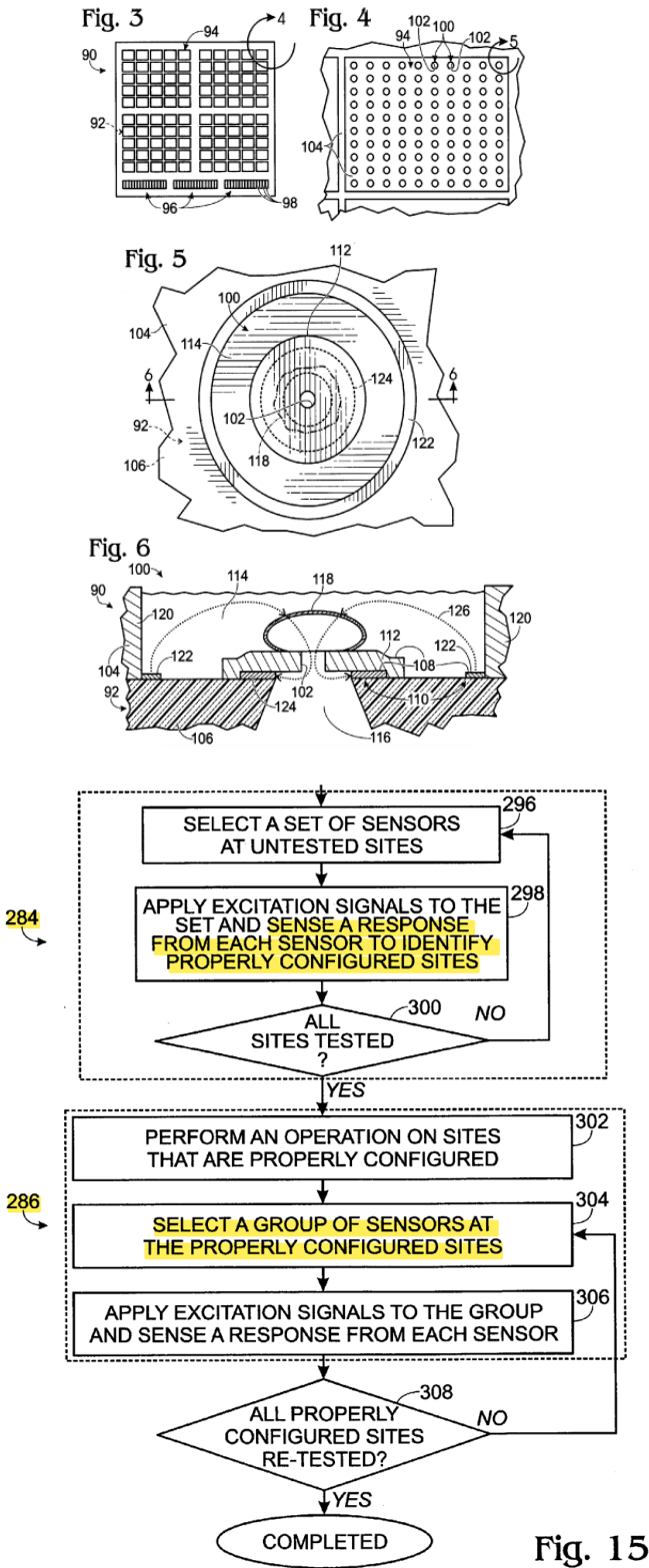


Fig. 1: The system architecture connected to a 4x3 matrix of spots. By way of ROW and COL digital signals, single spots or an entire row can be selected. V_c is the analog control voltage applied across all the spots of the matrix and CK is the clock signal used by the $\Delta\Sigma$ ADCs.

117. AOS 4-A9 (Tyvoll et al.): This document teaches a biochip with an excess of apertures (sensors) over interface elements (channels) and explicitly teaches selecting "properly configured sites" to avoid wasting resources. MGI argues that it would be obvious to apply this selection principle to the specific criteria of bilayer formation and protein insertion, which were known to be determinative of a sensor's utility. Below is a reproduction of Fig. 15 of AOS 4-A9 (Tyvoll), showing a flowchart for selecting and performing operations on "properly configured sites" in a biochip array:



118. AOS 4-A11 (Osman): This document discloses multiplexed biosensor arrays and acknowledges that performance is linked to the number of ion channels. Below is a reproduction of Fig. 2 of AOS 4-A11 (Osman), showing a multiplexed biosensor array where individual sensors (circles) are addressed by a grid of horizontal and vertical "BIOSENSOR ADDRESS LINES".:

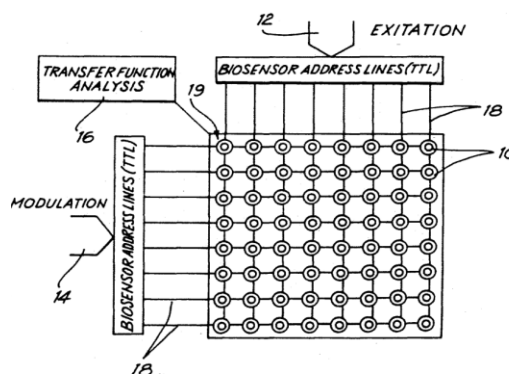


FIG. 2

119. MGI argues that combining these documents, for example, using the hardware concept from Bennati (AOS 4-A8) with the selection logic from Tyvoll (AOS 4-A9) or the autonomous reader circuit from AOS 4-A4, would have been a matter of routine for the skilled person.

Oxford's position

120. Oxford counters that EP 198 is valid and inventive. Their core argument is that the invention represents a counter-intuitive paradigm shift.
121. The standard approach at the time was to try and perfect the manufacturing process to make every sensor element functional. The invention of EP 198, by contrast, deliberately designs a system that accepts and expects a high rate of stochastic failure and solves the problem electronically by building in redundancy. This, they argue, is not an obvious step.
122. Oxford asserts that MGI's arguments are based on hindsight. Knowing the solution of EP 198 makes it easy to "cherry-pick" features from different documents, but there was no motivation or pointer in the prior art to combine them in this specific way (Response, paras. 56 - 64).
123. Oxford argues that the proposed combinations are technically flawed. For example, the architecture of Bennati (AOS 4-A8), which reads out an entire row of sensors concurrently, is fundamentally incompatible with the idea that individual sensors within that row might be non-functional. A skilled person starting from Bennati would not be motivated to implement the selection logic of EP 198.

The Court's opinion on validity of EP 198

124. The Court is of the opinion that the skilled person would not have been motivated to combine the known elements to arrive at the claimed system. From a preliminary point of view, MGI's arguments appear to rely on hindsight:

Bennati

125. The attack starting from AOS 4-A8 (Bennati et al.) is not convincing.

126. Bennati discloses a compact, low-cost 4x3 array of biosensors with three detection channels (one per row). It explicitly aims to reduce complexity and cost. It has a switch to select single spots for a "fully differential mode" to improve signal-to-noise ratio (SNR), but its primary mode of operation is to "readout concurrently the currents flowing out of each row".

127. Bennati's primary architecture of concurrent row-readout is at odds with the concept of individual failed sensors within that row. If a sensor in a row failed (e. g., had no bilayer), it would likely short the entire detection channel for that row, rendering the data from the other sensors in that row useless. A skilled person starting from Bennati would be motivated to perfect the sensor fabrication to make the row-readout work, not to implement a completely different selection logic that abandons the primary architecture. The motivation to combine Bennati with a selection-based-on-failure logic is not present and appears to be based on hindsight. Furthermore, the Court notes that the selection mechanism disclosed in Bennati serves a different technical purpose than that of EP 198. Bennati's "fully differential mode" is described as a means to improve the signal-to-noise ratio for a single, pre-selected spot. This is distinct from the claimed invention's purpose, which is to dynamically assess an array for failed sensors and selectively connect detection channels only to those with acceptable performance to enable large-scale data acquisition. Bennati's selection is for improving measurement quality on one sensor, whereas the selection in EP 198 is for managing system-wide stochastic failure across many sensors.

128. Therefore, there is no clear pointer that would direct the skilled person to the specific combination of features claimed in EP 198.

Tyvoll

129. The attack starting from AOS 4-A9 (Tyvoll et al.) is not convincing:

130. The Court acknowledges that Tyvoll describes a biochip for patch-clamping with an excess of apertures (sensors) over interface elements (channels) and a method to "identify properly configured sites" based on their electrical response (specifically, a high-resistance

seal). The stated purpose of this selection is to "avoid wasting limited or valuable test agents on improperly configured sites that will not provide data" (AOS 4-A9, [0077]).

131. The technical context and purpose of the selection in Tyvoll are fundamentally different from those of EP 198. Tyvoll is concerned exclusively with patch-clamping, where the cell itself (or cell membrane) is the object of analysis. The step of identifying "properly configured sites" is about finding where a cell has successfully formed a seal over an aperture. The stated purpose of this selection is to avoid wasting expensive test agents, such as drug candidates, on sites that are not properly sealed and thus cannot provide useful data (AOS 4-A9, [0077]). The problem solved is one of reagent conservation. In contrast, EP 198 is concerned with analyte sensing using an artificial system comprising a protein nanopore inserted into a lipid bilayer. The problem solved is not reagent conservation, but system-level inefficiency arising from the stochastic failure of sensor assembly. The "acceptable quality of performance" in EP 198 refers to the successful assembly of this artificial sensor (i.e., a bilayer has formed and a protein has inserted). The purpose of the selection is to maximize the utilization of a limited number of expensive detection channels. While Tyvoll teaches selection to avoid wasting test agents, EP 198 teaches selection to avoid wasting detection channels. Thus, EP 198 uses the nanopore in the membrane as a tool to analyse a different molecular entity. In the patch-clamping context of Tyvoll, the cell membrane itself is the object of study. Therefore, finding a 'sealed membrane' is the crucial prerequisite for any subsequent analysis, confirming that a viable test site has been established before test agents (the actual analytes in a drug screen) are applied. In EP 198, finding the sealed membrane is merely the first step to create a functional sensor. While Tyvoll teaches selection, it does so in a different context and for a different purpose. The motivation to adapt Tyvoll's specific method to the distinct problem of nanopore array scaling is not self-evident. Thus, a more likely motivation for a skilled person starting from Tyvoll would be to find ways to improve the efficiency of drug screening on cells, not to solve the distinct problem of throughput in a system based on stochastically assembled artificial nanopores. The technical problems and the specific meanings of a "functional site" are different.

132. Therefore, there is no clear pointer that would direct the skilled person to the specific combination of features claimed in EP 198.

Osman

133. The attack starting from AOS 4-A11 (Osman) is not convincing:

134. The Court acknowledges that Osman discloses a biosensor array with multiplexing capability, allowing for the independent measurement of distinct membranes (AOS 4-A11, Abstract; Fig. 2). The system described is capable of switching between and addressing individual sensors in an array. However, the technical purpose of the system disclosed in Osman is fundamentally different from that of EP 198. Osman addresses the problem of

improving the signal-to-noise ratio of a measurement by distinguishing the non-linear conductance of a functional ion channel from the linear conductance of the surrounding lipid membrane (AOS 4-A11, col. 9, ll. 28-53). The switching mechanism in Osman serves to address a specific sensor in order to apply this signal analysis. The underlying assumption in Osman is that one is measuring a functional sensor and wishes to improve the quality of that measurement. In contrast, EP 198 addresses the distinct problem of system-level inefficiency caused by the high probability of stochastic failure of individual sensors in a large-scale array (EP 198, [0004]-[0006]). The solution is not to improve the signal quality of a given sensor, but to manage a heterogeneous population of working and non-working sensors. The claimed "controlling" and "selective connection" is based on a binary assessment of functionality—i.e., whether a sensor has an "acceptable quality of performance" to begin with (e. g., a bilayer is formed and a protein is inserted). This is a system for resource allocation to overcome manufacturing and operational imperfections, a problem not mentioned or addressed in Osman. Therefore, there is no reason why a skilled person starting from Osman, who is taught to use multiplexing to perform high-quality signal analysis on a specific sensor, would be motivated to develop the system of EP 198. Osman provides no pointer or incentive to create a redundant architecture designed to identify and electronically discard non-functional sensors in order to improve overall system throughput. The technical problems are different, and so are the solutions. For that reason alone, MGI's argument that it would be obvious to apply the switching taught in Osman to the problem of sensor failure (Objection, para. 146-148) must be concluded to rely on hindsight. It combines the architecture of Osman with a problem (stochastic failure management) that Osman does not recognize and a solution (selective connection based on functional status) that Osman does not suggest, and MGI has failed to identify a sufficient pointer of motivation for the skilled person to take this step. Even assuming *arguendo* that a skilled person would for reasons other than hindsight consult Osman, the aspect of feature 1.11 requiring selectively connecting "in respect of which a lipid bilayer (26) or layer of other amphiphilic molecules is formed and an acceptable number of effective membrane proteins are inserted, on the basis of the amplified electrical signals that are output from the detection channels" is not disclosed therein, and there is no clear pointer that would direct the skilled person to the specific combination of features claimed in EP 198.

135. Thus, even if MGI was correct to conclude that AOS 4-A11 itself teaches that sensor quality varies with number of ion-channels, performance can be assessed using electrical signals, multiple biosensor membranes should be analysed and compared, and switching using for example multiplexer can allocate amplifier resources across a large number of biosensor membranes, and that those teachings raise the practical question of how the switched amplifier resources should be allocated to the most suitable biosensor membranes, this Court holds, that MGI failed to identify a sufficient pointer of motivation for the skilled person to take the next step towards the solution of the patent.

Common General Knowledge (CGK)

136. MGI relies heavily on CGK to bridge the gaps between the prior art and the claimed invention. They assert that the skilled person knew:

- Bilayer formation and protein insertion are stochastic.
- These events are directly measurable from the electrical signal.
- Multiplexing was a routine electronics practice.

137. While these points are largely conceded by Oxford, they do not, on their own, render the invention obvious. The inventive step does not lie in any one of these individual elements but in their specific combination to solve a problem in a way that was, as Oxford argues, counter intuitive. Knowing that sensors can fail does not automatically lead to the specific solution of building in redundancy and an electronic selection system, especially when the prevailing mindset might be to improve fabrication to prevent failure.

138. Therefore, there is no clear pointer that would direct the skilled person to the specific combination of features claimed in EP 198.

Technical infringement of EP 198

139. It is more likely that EP 198 has been infringed than not.

140. Oxford presented evidence from the CycloneSEQ software showing a 4,096-sensor array and 1,024 channels, as well as a 'MUX scan' that assesses the status of each well (Application, paras. 211–214; Exh. ONT-51).

141. MGI has not provided a technical rebuttal to this.

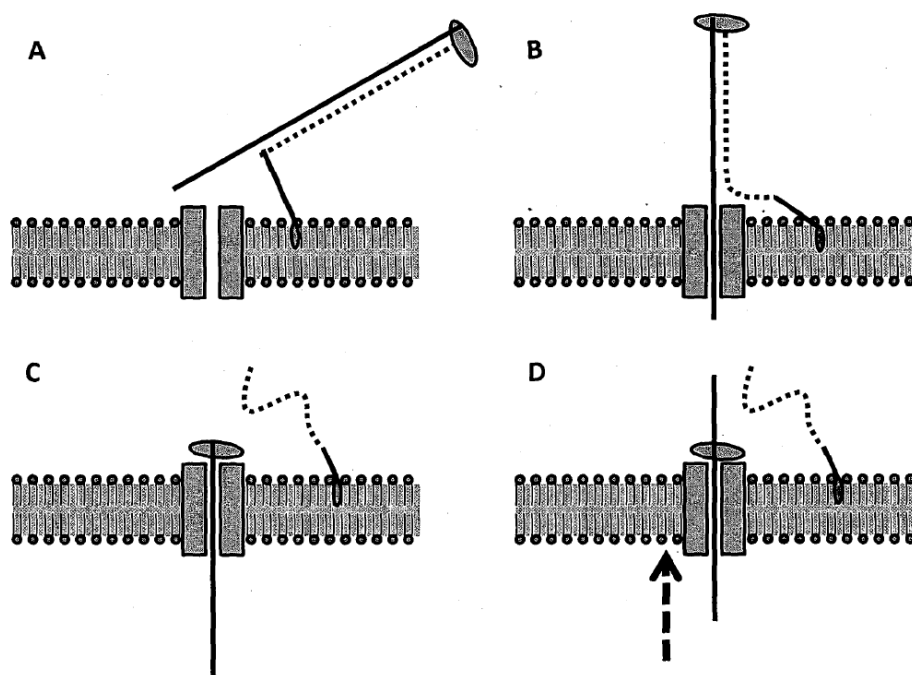
142. According to Rule 171.2 of the Rules of Procedure (RoP), Oxford's presentation shall be considered true between the parties. For the purposes of the application for provisional measures, the panel therefore holds that technical infringement of claims 1 and 7 of EP 198 by the Cyclone platform is more likely than not.

Claim Construction of EP 343

143. Claim 1 of EP 343 relates to a method for determining the presence or absence of an analyte, or its characteristics. The object of the invention is clear from the application as filed (see Exhibit AOS 5-B5, WO 2012/164270). The object is to lower the amount of analyte required for detection by several orders of magnitude (see, for example, page 1, line 30 to page 2, line 19 of the application as filed). This is achieved by coupling the analyte to the membrane containing the detector (Claim 1 and paragraph [0008] of EP 343).

144. EP 343 is entitled "*Coupling Method*" and relates to methods for determining the presence, absence or characteristics of an analyte by coupling it to a membrane in which a detector is present. The specification explains that the inventors *"have surprisingly demonstrated ultra-low concentration analyte delivery by coupling the analyte to a membrane in which the relevant detector is present. This lowers by several orders of magnitude the amount of analyte required in order to be detected. The extent to which the amount of analyte needed is reduced could not have been predicted"* (paragraph [0008]).
145. The specification reports an increase in the capture of single stranded DNA by approximately four orders of magnitude over that previously reported. The explanation is that because both the detector and analyte are now on the same plane, approximately 10^3 M s⁻¹ more interactions occur per second, as diffusion of both molecules is in two dimensions rather than three dimensions. The specification states that *"[t]his has dramatic implications on the sample preparation requirements that are of key concern for diagnostic devices such as next-generation sequencing systems"* (paragraph [0009]).
146. Coupling the DNA to the membrane *"acts to effectively increase the analyte concentration over the detector and so increase the sequencing systems duty cycle"* (paragraph [0010]), therefore lowering by several orders of magnitude the amount of analyte required (paragraph [0018]). This is particularly advantageous for nucleic acid sequencing because only small amounts of purified nucleic acid can be obtained from human blood (paragraph [0019]).
147. The specification provides extensive teaching on different tethering strategies (see paragraphs [0055] – [0081]). For example, paragraph [0064] explains that coupling of nucleic acids to synthetic lipid bilayers has been carried out previously with various different tethering strategies, summarised in Table 3 of the specification. Paragraph [0065] explains that synthetic polynucleotide analytes or linkers may be functionalized using a modified phosphoramidite in the synthesis reaction. Each different modification group tethers the polynucleotide in a slightly different way and coupling is not always permanent, giving different dwell times for the analyte at the bilayer.
148. The specification also describes four different tethering schemes for coupling analytes to solid state membranes (Example 4 and Figure 17): (A) the tethering group of the analyte embeds itself into a chemically modified layer, using for example a cholesterol or alkane anchor (paragraph [0265]); (B) the tethering analyte resides on the surface via hydrophobic, electrostatic, hydrogen bonding or Van der Waals interactions (paragraph [0266]); (C) the solid state membrane is modified to support a lipid monolayer, with tethering achieved using a cholesterol anchor (paragraph [0267]); and (D) a solid state membrane supports a lipid bilayer, with all the benefits of lipid membrane tethering (paragraph [0268]).

149. Figures 17 – 23 of EP 343 demonstrate various tethering strategies. In particular Figure 21 shows a schematic of helicase-controlled DNA movement through a nanopore using a hybridised tether: (A) DNA coupled to membrane via hybridised tether giving concentration enhancement; (B) under an applied voltage the DNA is captured by nanopore; (C) DNA is pulled into the pore until the bound polynucleotide binding protein contacts the top of the pore and prevents further uncontrolled translocation while tether strand is stripped off; (D) in the presence of appropriate cofactors the polynucleotide binding protein on top of the pore moves along the DNA and controls the translocation of the DNA through the pore. Below is a reproduction of Fig. 21 of EP '343, illustrating a schematic of helicase-controlled DNA movement using a hybridised tether. (A) The DNA analyte is coupled to the membrane via the tether. (B) The analyte is captured by the nanopore. (C) The DNA is pulled into the pore, and the tether is stripped off. (D) The controlling protein moves along the DNA, pulling it back through the pore.:



150. The specification includes a series of worked examples which demonstrate the practical significance of the tethering methodology. The examples demonstrate that tethering is advantageous. When comparing tethered and non-tethered DNA under identical conditions helicase-controlled DNA movement was observed only for the tethered DNA (Examples 5 and 6, paragraphs [0268]–[0278]). In the absence of tethering, the DNA concentration at the membrane surface was insufficient to achieve productive interactions with the nanopore. The specification concludes that *"by tethering the DNA to the tri-block co-polymer it is possible to observe helicase controlled DNA movement which was not detected in a similar experiment using nontethered DNA"* (paragraph [0278]).

151. Method-claim 1 of EP 343 reads as follows:

- 1.1 A method for determining the presence, absence or characteristics of an analyte,
- 1.2 comprising (a) coupling the analyte to a membrane comprising a detector wherein the analyte is not coupled to the membrane via the detector and
- 1.3 (b) allowing the analyte to interact with the detector present in the membrane
- 1.4 and thereby determining the presence, absence or characteristics of the analyte.

152. The skilled person is (again) an individual or team of individuals with sequencing experience.

153. A skilled person would understand that coupling the analyte to a membrane comprising a detector (feature 1.2) can be achieved using any method, and that linkers can be used (see paragraph [0056] of EP 343). Coupling can be achieved in the ways described in the figures and in various places throughout the specification, including paragraphs [0064] – [0068]. According to EP 343, the 'detector' (Feature 1.2) can be any structure that provides a readable signal in response to the presence, absence or characteristics of the analyte. Paragraph [0082] of EP 343 explains this further:

The detector can be any structure that provides a readable signal in response to the presence or the absence of the analyte. Suitable detectors are known in the art. They include, but are not limited to transmembrane pores, tunnelling electrodes, classis electrodes, nanotubes, FETs (field-effect transistors) and optical detectors, such as atomic force microscopes (AFMs) and scanning tunneling microscopes (STMs).

154. The dispute between the parties centres on the correct interpretation of the feature 'coupling the analyte to a membrane comprising a detector, wherein the analyte is not coupled to the membrane via the detector' (Feature 1.2). In this context, they are arguing about whether exonuclease sequencing is still covered by claim 1 as granted. In the context of the exonuclease sequencing method described in the patent (e. g. in paragraphs [0216 ff], which discloses 'Example 1 – Exonuclease Sequencing'), the target polynucleotide is coupled to the pore (i. e. the detector), digested by the exonuclease at the pore (i. e. the detector), and the resulting individual nucleotides (i. e. parts of the polynucleotide) then interact with the pore (i. e. the detector).

155. To answer this question the skilled person will take due account of paragraph [0055] of the description which reads:

In preferred embodiments, the analyte is not coupled to the membrane via the detector.

and the explicit claim language of claim 1, which states that the analyte must be coupled to the membrane and not — without exception — via the detector. As the primacy of the claim language must be observed, the skilled person understands that the description has not been adapted to the (now) narrower claim language. Thus, all parts of the description that do not explicitly mention the (former) preferred embodiment (i. e. not coupled to the membrane via the detector) must be understood as also comprising coupling the analyte to the membrane via the detector. Consequently, any part of the description that explicitly states that the analyte must be coupled to the membrane via the detector is no longer covered by claim 1.

156. This is particularly the case for certain examples dealing with exonuclease sequencing. As explained above, in some examples of exonuclease sequencing, the target polynucleotide is coupled to the pore (i. e. the detector), digested by the exonuclease at the pore, and the resulting individual nucleotides (i.e. parts of the polynucleotide) then interact with the pore. If the target polynucleotide in these examples were considered the analyte of claim 1, the feature 'not coupled via the detector' would not be met, since the target polynucleotide is coupled to the membrane via the pore (the detector). Conversely, if the resulting individual nucleotides were considered the analytes of claim 1, the feature 'coupled to the membrane' would not be met, as the nucleotides are not coupled to anything — neither the membrane nor the detector. Additionally, claim 1 demands a specific order of events: first, the analyte must be coupled to the membrane, not the detector; and second, the same analyte, which remains coupled to the membrane as no uncoupling is mentioned, must be allowed to interact with the detector in the membrane, thereby determining the presence, absence, or characteristics of the analyte. This limitation cannot be fulfilled by individual nucleotides at the same time.
157. The skilled person will appreciate that the coupling, which is a biological, electrical or chemical interaction between the analyte and the membrane, cannot be controlled entirely. However, the skilled person would seek to promote the desired coupling by applying the principles of "host-guest chemistry", a concept well-known in the art and described in the patent itself (see EP '343, e.g., [0132]-[0133]). This refers to designing specific, non-covalent interactions (such as hydrophobic interactions, hydrogen bonding, etc.) between a larger "host" molecule and a smaller "guest" molecule. In the context of claim 1, the skilled person would engineer a strong host-guest interaction between the membrane (e.g., via a hydrophobic anchor) as the host and the analyte as the guest. By the same token, the skilled person would understand that to meet the claim's explicit negative limitation ("not coupled to the membrane via the detector"), they must concurrently design the system to avoid a specific and functional host-guest interaction between the detector (as another potential host) and the analyte. Therefore, the Court concludes that a skilled person will give the negative proviso a functional understanding, such that the claim excludes a deliberately engineered or otherwise functionally relevant coupling via the detector, rather than any possible transient or incidental contact. In other words, the

skilled person will do everything possible to enable the coupling of the analyte to either the membrane (but not via the detector) or to the membrane via the detector, respectively. Although everything must be done to make coupling in the intended manner likely and coupling in the unintended manner unlikely, coupling in the unintended manner cannot be ruled out completely, particularly if the properties of the analyte are unknown. Therefore, the Court finds that a literal interpretation, whereby any incidental or transient contact with the detector would negate the feature, would be technically untenable to the skilled person in the context of the invention. Therefore, the skilled person will give feature 1.2's negative proviso a functional understanding, such that the claim excludes a functionally relevant coupling via the detector. This conclusion is in the eyes of the Court further supported by the skilled person's knowledge of the art concerning how moieties are functionally coupled. For instance, WO 2010/086602, cited in paragraph [0062], describes specific methods for creating stable, covalent bonds between moieties like proteins and pores using engineered hybridization linkers. Based hereon, the skilled person would understand "coupling" to imply a deliberate, functional, and engineered linkage. They would therefore be unlikely to interpret the term to cover potential, incidental, and non-covalent interactions between a hydrophobic anchor and the exterior of the detector, reinforcing that the claim excludes only a functionally relevant coupling via the detector.

Validity of EP 343

158. In view of the arguments brought forward by MGI, EP 343 (claim 1) is more likely to be valid than invalid.

MGI's position

159. MGI cited three primary documents: AOS_5-B8 (Gershow), AOS_5-B9 (Yusko) and AOS_5-B6 (Turner) and argued that the subject-matter of claim 1 of EP 343 would be anticipated by either of them. Anyhow, claim 1 of EP 343 would be obvious over AOS_5-B6 (Turner) combined with CGN. Additionally, the patent does not describe the invention of claim 1 in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

The Court's position on Gershow (novelty)

160. Paragraph [0082] of Gershow (AOS_5-B8) discloses tethering a DNA strand to the "surface of a membrane in which the nanopore is formed," which is adjacent to, but not via the nanopore itself. Claim 1 of EP 343 requires a specific technical arrangement: a "detector present in a membrane." This implies two distinct but associated components, such as a protein pore (detector) residing within a lipid bilayer (membrane). Gershow, however, describes a solid-state system where the "nanopore" (detector) is a hole fabricated within a solid substrate (membrane). In this context, the detector and membrane are not distinct entities in the manner claimed; rather, the detector is an

integral feature of the membrane. This fundamental difference in technical setup means Gershow does not provide a direct and unambiguous disclosure of the claimed arrangement, a strict requirement for a finding of anticipation. Below is a reproduction of Figs. 17 and 3 of AOS 5-B8 (Gershow). Figure 17 (top) illustrates a solid-state membrane with fabricated holes, where the membrane itself is the structure in which the nanopore (detector) is formed. Figure 3 (bottom) shows the integrated electronic setup for this solid-state system. These figures illustrate that the detector and membrane are not distinct components as required by claim 1 of EP '343:

Fig. 17

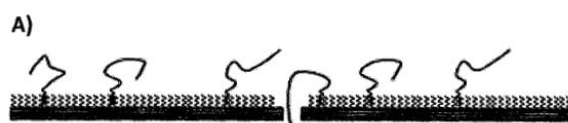
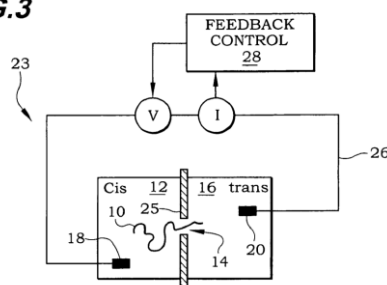


FIG.3



The Court's position on Yusko (novelty)

161. Yusko (AOS_5-B9) discloses coupling a streptavidin analyte to a lipid bilayer (membrane) that coats a solid-state nanopore (detector). The lipid bilayer coating on the nanopore should be considered part of the detector itself, thus not satisfying the claim's exclusionary proviso. Therefore, Yusko does not provide a direct and unambiguous disclosure of the claimed proviso.

The Court's position on Turner (novelty)

162. Paragraph [0149] of Turner (AOS_5-B6) explicitly discloses that proteinaceous components interacting with DNA can be tethered to either the "nanopore structure (102) or barrier (103)". MGI argues that "barrier (103)" is the membrane and "nanopore structure (102)" is the detector. Therefore, tethering to the barrier (membrane) and not the nanopore (detector) is directly disclosed, anticipating claim 1. Below is a reproduction of Fig. 10 of AOS 5-B6 (Turner), showing a schematic of a sequencing construct. The figure discloses that interacting components can be tethered to either the "nanopore structure (102)" or the "barrier (103)". The dispute centres on whether "barrier (103)" constitutes a

direct and unambiguous disclosure of coupling to the membrane, as distinct from the detector (102):

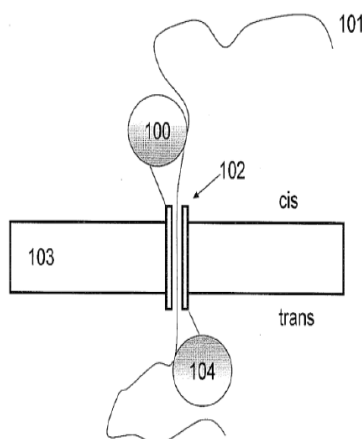


Figure 10 of Turner

163. The Court does not follow. Although it might be acknowledged that paragraph [0149] of Turner directly discloses the claimed proviso:

Optionally, one or more of the interacting components can be covalently, or non covalently tethered to the nanopore structure (102) or barrier (103) as indicated below.

the disclosure comes with the caveat “as indicated below”. This means that even if the Court assumed to MGI’s benefit that the mentioned “barrier” was the membrane of claim 1, the parts of the description of Turner below paragraph [0149] do not unambiguously disclose coupling the analyte to the barrier and thus the membrane.

164. MGI points to paragraph [0150] of Turner and argues that the “as indicated below” of paragraph [0149] does exclusively relate to the very next paragraph. In that very next paragraph, it is disclosed that a variety of DNA or RNA metabolizing enzymes can be used and thus Turner is not limited to exonuclease sequencing. However, paragraph [0150] is not related to tethering, as Oxford rightly points out.

165. Below paragraph [0149] there is not a single embodiment taking up the coupling to the barrier alternative. To the contrary, it is clear from paragraph [0215] that an exonuclease digests the DNA to produce dNMPs and the DNA is attached to the nanopore/detector to increase the likelihood that the dNMPs that are being excised by the exonuclease (as shown in Figures 25A-25D)

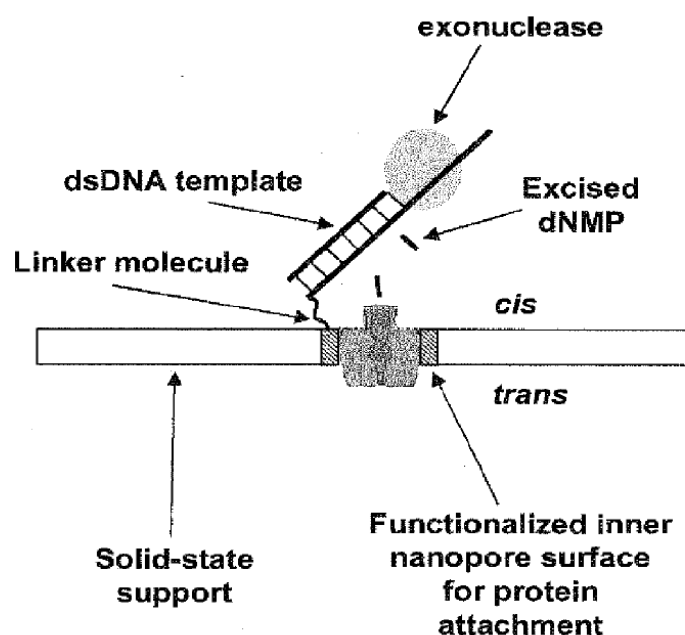


Figure 25 d of Turner

translocate through the nanopore and are detected. The reproduction of Fig. 25(D) of AOS 5-B6 (Turner) above illustrates an embodiment for exonuclease sequencing. This figure shows the exonuclease and the parent dsDNA template both attached to the "functionalized inner nanopore surface for protein attachment". This illustrates a system where the analyte source is coupled directly to the detector (the nanopore), a method distinct from and arguably teaching away from the invention of EP '343, which requires coupling to the membrane but not via the detector. There is no disclosure in Turner that this will also work if the DNA is coupled to the barrier/membrane. Therefore, Turner does not provide a direct and unambiguous disclosure of the claimed proviso.

166. However, it cannot be assumed that the barrier in Turner represents the membrane of claim 1 of EP 343. As Oxford explained in the oral hearing Fig. 11 and paragraph [0047] suggest that the barrier in Turner comprises DNA binding proteins while in the membrane according to claim 1 of EP 343 no binding proteins are present. In Fig. 14 paragraph [161] of Turner both terms "barrier" and "membrane" are mentioned, suggesting that they cannot be the same.

167. Therefore, Turner is not anticipating claim 1 of EP 343.

The Court's position on Turner (inventive step)

168. As the purpose of the method disclosed by Turner (exonuclease sequencing) is to detect cleaved nucleotides (dNMPs), the skilled person will recognise that this requires

maintaining their proximity to the detector. Coupling the parent DNA to the membrane away from the detector would cause the dNMPs to diffuse, which would render the method ineffective. Therefore, a skilled person would be actively dissuaded from making this modification, even when taking into account the 'or the barrier' alternative disclosed in paragraph [0149]. As explained above, this alternative is more confusing than enlightening. Therefore, a skilled person seeking to improve the efficiency of the specific exonuclease sequencing method in Turner would not be motivated to tether the source polynucleotide away from the detector, as this would heighten the likelihood that the cleaved nucleotides (dNMPs) diffuse into the bulk solution rather than interacting with the nanopore. The problem of providing ultra-low concentration detection in EP 343 is solved by taking a step that would be considered detrimental in the context of the prior art. This is a classic indicator of an inventive step. Therefore, claim 1 is not obvious in view of Turner.

MGI on insufficient disclosure

169. In the context of its insufficiency of disclosure (Art. 83 EPC) argument, MGI argues that the patent fails to enable base-by-base sequencing because it does not demonstrate the ability to distinguish between the four different nucleotide bases.

The Court on insufficient disclosure

170. This argument fails for two reasons. Firstly, the legal standard for sufficiency requires enablement across the full scope of the claim, not necessarily for a specific, preferred, or commercially valuable embodiment. As EP 343 enables the broader claimed method of determining analyte characteristics, the claim is likely to be considered sufficiently disclosed, even if a full demonstration of base-by-base sequencing is not provided. Secondly, the invention of claim 1 of EP 343 is not modifying methods to distinguish between the four different nucleotide bases known in the prior art. The description refers in countless parts to methods known in the prior art. The invention relates to the finding, that coupling the analyte to the membrane where a detector is present but not via that detector allows an improved determination of analyte characteristics as ultra-low concentration detection is enabled. For the details of base-by-base sequencing the skilled person is referred to solutions known in the prior art. Therefore, claim 1 is sufficiently disclosed.

Technical infringement of EP 343

171. It is more likely that EP 343 has been infringed than not.

MGI on technical infringement of EP 343

172. MGI has contested the presence of the proviso of claim 1 (not coupled to the detector). The presence of the other features of claim 1 have not been contested.

Oxford on technical infringement of EP 343

173. Oxford states that using the Cyclone Platform involves coupling the analyte to a membrane (and not via the detector present in the membrane) via tethering. For proof Oxford relies on tests they conducted with a test-bought CycloneSEQ-WT02, flow cells and reagents. They state that the CycloneSEQ Universal Library Preparation Reagent Set Manual provided with the CycloneSEQ WT-02 sequencer obtained describes the 'Product Information' as "H940-000013 CycloneSEQ Universal Library Preparation Kit". WO 028, of which the Third Defendant is the proprietor states that "[l]ibraries were prepared using the H940-000013 CycloneSEQ universal library preparation kit". This is the same description as the library preparation kit provided with the CycloneSEQ-WT02. WO 028 explicitly describes the use of a tether and provides the sequence identity as TTGACCGCTCGCCTC. Further, a DNA based hybridised tether with a hydrophobic anchor is consistent with the observed results from the CycloneSEQ-WT02 as described in the application for provisional measure. As cholesterol is a well-known hydrophobic anchor for DNA coupling to membranes and not proteins such as nanopores (in this context a detector) infringement is more likely than not. Oxford notes that MGI has admitted in mn. 667 of the objection that a hydrophobic anchor is part of the sequencing kit (cf. also Exhibit ONT-4599) provided within the Cyclone Platform.

MGI on technical infringement of EP 343

174. MGI counterargues that this is speculative and fails to prove the negative limitation of claim 1. In the oral hearing MGI said that they contest the presence of the proviso with ignorance as they have no information how the Cyclone Platform works. They have not conducted tests to determine whether a binding of the analyte to the pore/detector occurs or not.

The Court on technical infringement of EP 343

175. Oxford's case for infringement of the proviso ("not coupled... via the detector") is based on inferential evidence. According to Oxford, their experiments on the "incubation buffer" suggest the presence of a heat-stable tether, and its analysis of the respondent's related patent application (WO 028) suggests this tether is a hydrophobic anchor like cholesterol (Application, paras. 168-169). Oxford argues that such an anchor is known to couple to lipid membranes, not to protein nanopores (Application, claim chart Exh ONT-52). MGI has contested the presence of this feature primarily by stating they have no information on how the Cyclone Platform works and has not conducted tests.

176. The Court notes that firstly R. 171.2 RoP requires specifically contesting of a statement of fact made by the other party. Contesting by ignorance is not specifically contesting under that rule.

177. Secondly, MGI has imported at least the one Cyclone Device (G-100ER) to Germany which is shown in the YouTube video. Reference is made to the findings below under mn. 181-183. An importer has the same obligations as a manufacturer which is to pro-actively monitor the patent landscape and make sure the manufactured or imported devices do not infringe patents valid in the jurisdiction where the manufacturing takes place or to where the devices are imported to. Therefore, a manufacturer or an importer are not allowed to dispute with ignorance.
178. Thirdly, the proviso of claim 1 is a negative fact. As it is impossible to proof the presence of a negative fact the other party has a secondary burden of pleading and proof to the extent that they must provide a technically plausible explanation or technically plausible evidence which suggests the possibility that a functionally relevant coupling with the detector (the protein nanopore) is in fact present or at least can be present. MGI failed to provide anything in this regard.
179. Fourthly, Oxford has relied on the fact that as a part of the sequencing kit provided within the Cyclone Platform a hydrophobic anchor is provided and that hydrophobic anchors will bind to membranes and not proteins such as nanopores. MGI has not disputed this, and the Court finds the technical premise underlying Oxford's argument to be sound. A person skilled in the art would understand that a hydrophobic anchor, such as cholesterol, functions by inserting into the hydrophobic core of a lipid bilayer membrane due to the hydrophobic effect. The exterior of a protein nanopore, being exposed to an aqueous environment, is predominantly hydrophilic. Consequently, a hydrophobic anchor has a strong thermodynamic preference for the lipid membrane and no specific affinity for the protein detector. This principle is explicitly taught within the patent-in-suit itself, for example in paragraphs [0055] and [0063] and exemplified in Table 3, which identify cholesterol as a well-known anchor for coupling molecules to lipid membranes. Therefore, the assertion that hydrophobic anchors couple to membranes and not to proteins like nanopores aligns with the understanding of the skilled person. Consequently, in the absence of any substantiated technical counterargument, and for the purposes of this application for provisional measures, the Court must, pursuant to R. 171.2 RoP, assume that the statement of fact brought forward by Oxford is true between the parties. Therefore, claim 1 of EP 343 is more likely infringed than not infringed.
180. In addition, respondent 2), the global distributor, has admitted technical infringement of claim 1 of the nearly identical Australian 'sister' patent in the Australian proceedings. Reference is made to the amended application MN. 220-224. While this may have been triggered by cost-saving considerations, as respondent 1) (short "MGI") suggests, this, together with the other points, illustrates that infringement is more likely than not.

Individual (threatened) acts of infringement by respondent 1) (short “MGI”)

181. The YouTube video shows respondent 1) (short “MGI”) in possession of a Cyclone Device (G-100ER) in Berlin, Germany. They did not sufficiently dispute Oxford’s conclusion that they had imported the device, which was manufactured by respondent 3), into Germany and stored it there for the purposes of offering, placing on the market or using it. Respondent 1) said the following on this matter:

“As already explained at margin no. 637 of the Objection, the purported depiction of the G-100ER in the YouTube Video consists of nothing more than a still image of the exterior housing of a product, without any accompanying explanation, identification or context. The video does not show the G-100ER being operated, offered, stored or otherwise used. ... The video thus does not establish that the Accused Products were imported into, stored in, or otherwise present in a patent territory for the purposes of offering, marketing, or using those products within the territories for which EP 198 and EP 343 are validated.”
(Rejoinder no. 103-104).

182. By using this wording, respondent 1) does not substantially dispute Oxford's allegation that they imported the (fully functional) device. They merely argue that the video does not prove importation of a (fully) functional device. The same is true of the allegation of possession or storage. Further respondent 1) did not provide any further information regarding when, where and how the video was made. Therefore, the allegation has not been sufficiently disputed and, pursuant to R. 171.2 RoP, the Court must consider the proposed facts to be true between the parties. These acts of importing and storing constitute complete acts of infringement carried out by respondent 1).

183. Combined with the fact that respondent 1) hosts the CEC and the European MGI headquarters, it can be concluded that there is an imminent threat of further infringing activities carried out by respondent 1), such as offering, placing on the market or using Cyclone Platform devices and methods. The threat of the latter is that since potential customers are offered the opportunity to try out the various devices available at the CEC in the material describing the CEC. As the G-100ER is also available there as has already been shown to potential customers in the YouTube video, there is a risk that it will be used in a way that infringes the two patents in question. Respondent 1) has done nothing to address this threat like offering e.g. a cease-and-desist undertaking.

Common Design and (threatened) acts of infringement by the other respondents

184. The case law on common design can be described as follows:

185. The Court of Appeal has concluded in *Fujifilm v Kodak* (decision of 2 June 2026, UPC_CoA 312/2025, 333/2025, 880/2025, 882/2025) and in *Philips v Belkin* (decision of 3 October 2025, UPC_CoA 534/2024) that:

“An infringer within the meaning of Art. 63 UPCA in conjunction with Art. 25 UPCA is also a person who does not personally carry out the acts referred to in Art. 25 UPCA but to whom the acts of a third party are attributable because he is an accessory.”

186. The Local Division Düsseldorf has concluded in *Novartis & Genetech v Celltrion* (Order of 6 September 2024 UPC_CFI_165/2024 and 166/2024) that:

“Companies that are members of a group and play a key role in a distribution network for the infringing product – such as a sole manufacturer or a European sales and marketing hub – may also be considered as infringers if they are located outside the Contracting Member States but supply their products to other members of the group located in the Contracting Member States, while these companies distribute these products on the European market, including at least one Contracting Member State where the patent in suit is valid.”

187. When this case law is applied to the present application, it must be stated that respondent 1) (short “MGI”) is the European headquarters of MGI, which is equipped with its full product portfolio. It has also been identified that respondent 1) possesses at least one Cyclone Device. Respondent 1) (also markets MGI/BGI's range of products at conferences. Respondent 2) is the exclusive global distributor of the Cyclone Platform, having acquired 100 percent of the equity in Respondent 3), the manufacturer of the Cyclone Platform which holds the CE mark for the G100-ER. Respondent 4) has explicitly offered services to be provided on the Cyclone Platform in Europe. These services are to be conducted using the Cyclone Platform, which is manufactured by respondent 3), while respondent 2) holds the exclusive marketing rights, and respondent 1) runs the CEC, where the full range of MGI products is offered.

188. The LinkedIn post does not inform the recipient that the method will be conducted on devices delivered to and placed in Poland where the two patents in suit are not validated. Furthermore, the explanation provided by MGI does not clarify why the LinkedIn post refers to “powered by our European labs” (plural). MGI has not stated that all labs are run in Poland. Further this does not explain the post’s reference to “local support”.

189. In addition, the overlaps in personnel, ownership and control, and scientific coverage between the various BGI and MGI entities, as demonstrated above, provide sufficient evidence, when considered together, of at least an imminent threat of infringement by common design involving at least the four respondents and involving all acts of use regarding claims 1 and 7 of EP 198 and claim 1 of EP 343 directly or indirectly as explained below in mn. 202-221.
190. [REDACTED] is a particularly good example of the overlap in staff, as he is President of Europe (and Africa) for both the “BGI Group” and “MGI” (see Exhibits ONT-67, 68, 69, 71 and 72).

Experience

总经理

BGI · Full-time

Jan 2026 - Present · 7 mos

Shenzhen, Guangdong, China · On-site

研发, 国际销售 and +1 skill

BGI Group

16 yrs 5 mos

President Europe

Apr 2019 - Present · 7 yrs 4 mos

Europe

SVP of BGI-Research

Mar 2018 - Present · 8 yrs 5 mos

深圳

Researchers

Full-time

Mar 2010 - Present · 16 yrs 5 mos

中国 深圳 · On-site

MGI

President Europe and Africa

MGI · Full-time

Mar 2019 - Present · 7 yrs 5 mos

德国 法兰克福 · On-site

Urgency

191. The application for provisional measures is admissible, as it was filed without undue delay.
192. When weighing up the interests of the parties, the Court takes into account any unreasonable delay in applying for provisional measures, as set out in R. 211.4 RoP. In case the patent proprietor’s conduct shows that enforcing its rights is no longer urgent, there is no need to order provisional measures. The Court of Appeal has clarified in its order dated

17 April 2026 in the case *Abbott v Sinocare* (CoA 901/2025) that the time limit within the meaning of R. 211.4 RoP is to be calculated from the date on which Oxford became aware or should have become aware of the infringement that would enable him, in accordance with R. 206.2 RoP, to file an application for provisional measures with a reasonable prospect of success. Thus, the decisive point in time is when Oxford has, or should have had, after exercising due diligence, the necessary facts and evidence to establish infringement or the risk thereof within the meaning of R. 206.2(d) RoP. Whether there has been an unreasonable delay within the meaning of R. 211.4 RoP depends on the circumstances of the individual case. In this context, it should also be noted that no party can be expected to initiate proceedings without preparation. Rather, an adequate preparation of the proceedings is required. Oxford should only apply for a preliminary injunction if it has reliable knowledge of all the facts that make legal action in PI-proceedings promising.

193. This threshold is met in the case at hand. The Court agrees with Oxford that the time limit must be calculated from 19 May 2026, the date when the General Counsel of Oxford became aware of the LinkedIn Post. This was the very first instance Oxford became aware of an actual infringement or imminent threat of infringement within the territories subject to this application. Earlier activities by the respondents which were known to Oxford do not qualify. The website directed to the European market does not show the Cyclone Platform and the website showing them is not directed to the European market, as MGI underlined. The communications in connection with the CE-mark approval mentioned “selected EU countries”, leaving open any further details. As the patents in suit are not validated in all European countries, MGI underlines that they are not validated in e. g. Poland, Oxford could not be sure in which country an application for provisional measures might be successful. As far as MGI argues that Oxford should have discovered the YouTube video earlier, the Court does not follow. Generally, the patent owner is not obliged to monitor the market to identify any infringing activities (UPC_CoA_19/2026, Order of 2 July 2026, *Guardant Health v Sophia Genetics*). This does not change just because Oxford said that they in fact monitored the group’s activities in the context of the UK proceedings and the Australian proceedings to find out whether they directed activities towards the European market. As Oxford was not obliged to monitor the group’s activities, any deficit that MGI sees in the finding of the YouTube video not right away after it was uploaded but only after the LinkedIn post had been put online, cannot result in a finding that it must be said that Oxford has pursued its claims so negligently and hesitantly that it can objectively be assumed that it had no interest in the rapid enforcement of its rights and it therefore does not appear appropriate to order provisional measures.

194. The time that passed between 19 May 2026, when Oxford first became aware of the situation, and 26 June 2026, when the present application was filed, does not suggest that Oxford was not interested in the rapid enforcement of their rights. Oxford has explained their actions during this period, and the Court is satisfied that no time was wasted. Although Oxford had already set out infringement arguments relating to four parallel

patents infringed by the Cyclone Platform in the Australian proceedings, respondent 1) (short “MGI”) is not a party to these proceedings and the territories in question are not subject to them. As evidenced by Exhibit AOS 2, the respondents are part of an opaque structure. This exhibit was filed by respondent 1) (short “MGI”) and the information it contains about how the group is connected and operates was not easily accessible to Oxford. Therefore, it had to be investigated and presented in the application. Furthermore, as a party operating in the Chinese market, Oxford had to evaluate Chinese Decrees Nos. 834 and 835 (Exhibits ONT-86 and ONT-87). Promulgated shortly prior to the application, these two decrees contain prohibitions on certain investigations or other information collection activities related to industrial and supply chains, and the identification of unjustified extraterritorial jurisdiction measures by foreign states, as well as consequences for non-compliance. Clearly, each of the decrees has the potential to apply to the application. Accordingly, Oxford had to carry out the necessary due diligence and consider how this related to the application and its activities in the Chinese market. Additionally, they had to evaluate the content of the newly discovered YouTube video and include it in the application. Lastly, the invalidity arguments raised by the Australian defendants had to be evaluated and taken into account. As Oxford explained, these invalidity arguments had been raised by the Australian defendants quite cursorily. A more detailed explanation was due, but the Australian defendants were granted an extension by the Court. Therefore, Oxford had to conduct the validity evaluation without the benefit of further enlightening briefs from the Australian defendants. It is irrelevant in this regard that the application does not contain any of these arguments, as an applicant for provisional measures must be prepared to respond to any arguments raised by the other party within a short timeframe. In the current case, this timeframe was one week. The Court does not consider that the date on which Oxford’s board decided to proceed with this application (5 June 2026) suggests a lack of interest in the rapid enforcement of their rights. As Oxford set out under item E on page 61 of the response, ‘The decision was made on 5 June 2026 to prepare the detailed application and, in principle, to issue’. This suggests that preparatory work was carried out prior to and in parallel with the board’s decision. The Court cannot identify any hesitant behaviour.

Necessity

195. The measures requested by Oxford are necessary and proportionate to freeze the status quo, characterised by a one-player market, and ward off the danger of price erosion.
196. The Court of Appeal decided in its order of 8 July 2026 in the case *Align v Angelalign* (CoA_36/2026) that proceedings for provisional measures are summary in nature and cannot substitute for a full examination on the merits; they are therefore only available where the nature of the case is such that proceedings on the merits cannot be awaited. Irreparable harm is not a necessary condition – necessity may arise from direct competition between the attacked embodiment and the patent holder’s product, where granting the injunction serves to maintain the status quo existing immediately before the alleged

infringement. Where a competitor introduces an infringing feature that disrupts a market situation previously characterised by a single provider, this move can be expected to lead to permanent market share erosion and lasting harm, particularly in a market where customers typically commit to one provider on a long-term basis. The difficulty of quantifying such damages does not justify refusing the injunction.

197. Oxford's case on direct competition is straightforward: Oxford is the only provider of long-read nanopore sequencing technology commercially available in Europe. The Cyclone Platform is also a long-read nanopore sequencing platform. Any entry by the respondents into this market necessarily competes directly with Oxford. Further the LinkedIn post offers a 50 per cent discount and thus triggers the danger of price erosion.

Balance of interests

198. In the present case, the balance of interest favours Oxford.

199. In its order of 8 July 2026, the Court of Appeal decided in the case of Align v Angelalign (CoA_36/2026) that the balance of interests favours the patent holder if the infringer can easily return to their previous, non-infringing offering and if any harm caused by a subsequent reversal of the injunction in the main proceedings can be compensated for through a claim for damages.

200. In this case, only a few instances of actual infringement have been presented. Oxford relies primarily on threats of infringement. Therefore, MGI can readily revert to its prior, non-infringing activities. This is supported by the fact that the patents in question are not validated in all European states; for example, Poland is not a validation state.

201. The fact that this application predominantly covers threats of infringement rather than actual infringements cannot be held against Oxford. The harm, which could include loss of market share, potential price erosion, customer confusion, and reputational damage, occurs when the respondents start to supply infringing products to customers in the area where the relief is sought, rather than when they announce their intention to do so. Therefore, Oxford, who evaluated the value in dispute to be € 500,000, cannot be placed in a position where this low value is used to suggest that the harm is trivial. The harm resulting from a full market launch could be substantial (though not quantifiable) and irreparable, precisely the situation in which provisional measures are appropriate. In any case, the Court sets the value at € 4 million, as discussed below under mn. 224, and as indicated in the oral hearing.

Formal relief for CMS of the UPCA

202. Whether or not the formal request for countries of protection being contracting member states (CMS) of the Agreement on a Unified Patent Court (UPCA) is to be decided on the basis of the Agreement and the Rules of Procedure (RoP).
203. The order to refrain from infringing the device claim 7 of EP 198 (item 5) is justified because respondent 1) (short “MGI”) imported a G100-ER device from China to Germany and stored it there. Whether or not a flow cell had been inserted is irrelevant, as the manufacturer has deliberately chosen to implement the technology in such a way that the cyclone devices are used together with flow cells that are inserted into them. Flow cells have no other use, and customers cannot use the devices without the matching flow cell. Therefore, the manufacturer, who produces both the devices and the flow cells, effectively uses the recipient as a prolonged workbench in the manufacturing process. It is therefore justified to conclude direct patent infringement under Art. 25 UPCA. In any event, a threat of infringement has been demonstrated in this regard. The actions of the other respondents can be attributed to respondent 1) by virtue of the common design theory, as explained above, leading to another threat of infringement. The same applies to all other ways of use. Therefore, a comprehensive injunction covering all forms of infringing acts is appropriate and necessary. The evidence established that respondent 1) is an integral part of the corporate infrastructure through which infringing products are placed, or could be placed, on the European market. To carve out certain acts of infringement would leave an artificial gap in the relief (for example, to allow respondent 1) to manufacture or use infringing products in Europe) that is inconsistent with the purpose of provisional measures. By virtue of Art. 34 UPCA, this applies to all CMS in which the patent is in force. The addition 'or any other sequencer system embodying materially the same sequencing technology' is justified, as it highlights the so-called core theory, meaning that, irrespective of the brand name of the device, its properties are material. Therefore, the injunction also covers devices with different brand names but materially the same, patent-infringing properties. In this respect, whether or not an explicit reference to the core theory is present in the Court's formal order is immaterial. The terms “cyclone devices” and “flow cells” refer to the attacked products as set out above.
204. The order to refrain from infringing method claim 1 of EP 198 (item 6) is justified, as respondent 4) offered to perform the method in the European countries of protection, subject to the application. As explained above, the recipient of the LinkedIn post could not have known that the process would actually be performed in Poland, as suggested by respondent 1) (short “MGI”). In any event, the risk of a first infringement is imminent. The actions of respondent 4) can be attributed to respondent 1) by virtue of the common design theory, as explained above.

205. The order to refrain from indirectly infringing method claim 1 and device claim 7 of EP 198 (item 7) is justified pursuant to Art. 26 UPCA, as direct infringement by virtue of the prolonged workbench theory, as explained above, is, in any event, indirect infringement. Devices without a flow cell and flow cells without a device are each a means related to an essential element of the device claim invention. The same applies to the method claim, with the addition that it is immaterial whether the device comes with an incorporated flow cell or not. Flow cells essentially contain everything except the switch control. Neither works without the other.
206. The order to refrain from directly infringing method claim 1 of EP 343 (item 8) is justified, because of the same reasons as stated for method claim 1 of EP 198.
207. The order to deliver to a bailiff any cyclone devices (with or without incorporated flow cells) or other sequencers that embody the same sequencing technology in a material way, as well as flow cells (including sequencing flow cells) for use with said cyclone devices, whether in stock, held, owned, or otherwise in the direct or indirect possession of respondent 1) (short “MGI”) (item 9), is justified pursuant to Art. 62 UPCA and R. 211.1(b) RoP. Oxford has proven that respondent 1) was in possession of at least one G100-ER device in Germany. Respondent 1) has not proposed that they are no longer in possession of that device. Reference is made to Art. 34 UPCA for the other territories.
208. The order to provide Oxford with specific information in the form of a written statement supported by the relevant documentation (item 10) within two weeks of this order being served is justified pursuant to Art. 67 UPCA and Rule 191 RoP. As explained above, respondent 1) (short “MGI”) was in possession of at least one G100-ER device in Germany. There is an urgent need for this information, and such measures are proportionate. This information is required to prevent infringing devices from entering or moving within the channels of commerce. This includes information on quantities of the products in question, as well as pricing (UPC_CoA_382/2024, APL_39664/2024, Order of 14 February 2025, Abbott Diabetes Care v Sibio). This information is necessary not only for quantifying damages, but also for effectively enforcing any injunctive relief and enabling Oxford to assess the full extent of the infringement. Given the opaque structure of the BGI and MGI groups of companies and the difficulty of attributing acts to either group, disclosure is both necessary and proportionate.
209. Given that proceedings for infringement on the merits must be brought within 31 calendar days or 20 working days from the date specified in the Court’s order granting provisional measures (R.213 RoP), it is inappropriate to allow MGI four weeks, as requested by them, to provide the information. Further, the request for an extension of time is irreconcilable with MGI's case that no such products or infringing acts are carried out in the relevant territories. On that assumption it should not need any substantial time to provide the information required. MGI's request (objection paragraph 724) belies their denial and suggests that acts of infringement have in fact taken place. Anyhow the Court

defined the point of time according to R. 213 RoP in an abstract way as explained below at mn. 229. Therefore, any unforeseeable obstacles to meet the deadline can be accommodated.

210. Item 11 (recurring penalty payment) is based on Rule 354.3 of the Rules of Procedure (RoP). During the oral hearing, the parties informed the Court that the G100-ER device costs around € 50,000, the G400-ER around € 150,000, and flow cells around € 1,000. Taking this into account, a recurring penalty payment of up to € 70,000.00 for each infringing product, as suggested by Oxford, seems proportionate. In the event of actual non-compliance, account can be taken of the actual sales price. The same applies to the recurring penalty payment of up to € 20,000 for each subsequent day of non-compliance.
211. The same applies to the recurring penalty payment of up to € 400,000 for each day, or part of a day, of delay or non-compliance with items 9) and 10) of this order (item 12). As this amount is not fixed, the circumstances of each case of non-compliance can be considered.

Long-arm territories

212. The international jurisdiction of this Court for the requests covering countries of protection not being contracting member states (CMS) of the Agreement on a Unified Patent Court (UPCA), so called long-arm jurisdiction territories, has been accepted by respondent 1). The same is true for the internal competence of the Local Division Munich. As the Court aligns with both parties on that, no further reasoning is warranted.
213. Whether or not the formal requests for these long-arm jurisdiction territories are well founded is to be decided on basis of the law applicable on patents in each of these territories.
214. The applicant shall provide evidence as to the foreign law applicable in the territory where the order shall be enforced and its application (Local Division Düsseldorf, Order of 21 May 2025, APP_16529/2025 – Hologic v Siemens).
215. This must be done for both the validity and infringement thresholds.
216. Neither party has pleaded the validity of the denominations in the long-arm territories differently to how they have pleaded the denominations in the territories of the CMSs. As the validity of all denominations is predominantly to be decided on the basis of the EPC, the Court is satisfied that, for the purposes of this urgent application for provisional measures, the application of the EPC by the courts of the long-arm territories does not differ to such an extent as to change its assessment of the denominations in the territories of the CMSs, namely that claims 1 and 7, and EP 198 and EP 343, are more likely to be valid than invalid.

217. However, at the invitation of the judge-rapporteur, Oxford provided in the amended application pleadings on the relevant statutory provisions for each of the long-arm territories on infringement and explained them. During the oral hearing, they also referred to what they considered to be the leading UK Supreme Court case, *Fish & Fish Ltd v Sea Shepherd UK* [2015] UKSC 10. They explained that, for joint liability, a defendant must provide more than de minimis assistance and share a common intention to commit the tort of patent infringement. This aligns with the Court of Appeal's findings in *Fujifilm v Kodak* (2 June 2026, UPC_CoA 312/2025, 333/2025, 880/2025, 882/2025, MN). 324–328). Oxford further explained that the concept of joint tortfeasorship based on common design also applies to the other jurisdictions.
218. MGI has not commented specifically on this, nor on the subsumption carried out by Oxford in this regard. As Oxford's subsumption aligns with the Court's views, no further explanation is necessary at this stage, and the Court is satisfied for the purposes of this urgent application for provisional measures.
219. What MGI has specifically argued in relation to the long-arm territories is that they have not yet obtained all the necessary administrative approvals to legally market the attacked devices and methods in those territories. That leads to the conclusion that there is no imminent threat of infringement. The Court does not agree.
220. Firstly, as Oxford explained, those necessary administrative approvals can be obtained without much effort and in a very short period of time.
221. Secondly, Respondent 4) has already published a LinkedIn post offering customers in Europe, including those in the long-arm territories, the protected methods to be run on the infringing devices in Europe, including the long-arm territories. As explained above, customers could not infer from the post that the sequencing would actually be carried out in Poland, as MGI suggested. Therefore, the lack of administrative approvals did not prevent the respondents from committing an act of infringement.

No security for enforcement

222. Whether or not a security payment is required for enforcement of the order is at the Court's discretion. As with security for costs, the applicant must demonstrate that the other party is unable to pay, or that there are other obstacles to successfully enforcing any damage claims. For example, this could be due to the other party being located in a jurisdiction where the enforcement of foreign Court orders is questionable.
223. MGI has not provided any reasons why they believe that Oxford is not good for the money, nor have they explained why an order of this Court regarding damages for wrongful enforcement would not be enforceable in the UK.

Value and costs

224. Oxford estimated the value of the proceedings, including the alleged infringement of four patents in multiple territories (including long-arm jurisdiction territories), to be € 500,000. Taking into account the sales prices of the above-mentioned devices and estimates made in other cases, this Court estimates the value of the application as filed to be four million euros, one million for each patent. The partial withdrawals or the separation of the case with respect to respondents 2) to 4) has no bearing on this estimation, since the decisive factor is the time of filing.
225. In the oral hearing parties have informed the Court that they have entered into a cost agreement that provides a reimbursement of € 100.000 for representation costs to the winner and that the Court is asked to decide in principle who must bear the costs.
226. As Oxford withdrew the application regarding two patents and claim 13 of EP 343, but won on the rest, the Court deems it fair and reasonable to order MGI to bear 50 per cent of the court fees for these proceedings. Furthermore, MGI must reimburse Oxford 60 per cent of its proportionate legal costs for representation in these proceedings.
227. Regarding the court fees, the calculation method is based on the number of patents, each valued at € 1 Mio. As two patents were withdrawn and Oxford won on the other two, MGI shall reimburse Oxford 50 percent of the court fees.
228. Regarding the reimbursement of the Oxford's representation costs, the Court's assessment is based on the consideration that each of the asserted patents can be given a weighting of 20 per cent, with an additional 20 per cent allocated to the question of common design. Oxford won on the question of common design and on two patents still subject to the application, amounting to 60 percent. Therefore, MGI shall reimburse Oxford 60 percent of the representation costs. For this exercise, the Court considers that the partial withdrawal of relief based on claim 13 of EP 343 can be disregarded.

Deadline for filing main proceedings and date for the oral hearing in the main proceedings

229. According to R. 231.1 RoP the Court shall ensure that provisional measures are revoked or otherwise cease to have effect, upon request of the defendant, without prejudice to the damages which may be claimed, if, within a time period not exceeding 31 calendar days or 20 working days, whichever is the longer, from the date specified in the Court's order, the applicant does not start proceedings on the merits of the case before the Court. When specifying the date, the Court shall take due account, where applicable, of the date on which the Report referred to in Rule 196.4 shall be presented.

230. The Court specifies this date as being the date by which the information referred to in item 10) must be provided by MGI to Oxford. According to item 10, this information is due within 14 days of the order being served. As the order was uploaded to the CMS on 15 September 2026, the information is due on 29 September 2026. If MGI provides the information after this date for any reason, the relevant dates for complying with R. 231.1 RoP will also change. As MGI will have full control over the date on which they provide the information to Oxford, this Court believes that this solution is fair, equitable, and in line with the rules.

Separation of the proceedings in respect to respondents 2) to 4)

231. Pursuant to R. 303.2 and 3 RoP the Court may separate the proceedings into two or more separate proceedings against different defendants. Where the Court orders a separation of proceedings under paragraph 2, the claimants in the new proceedings shall pay a new court fee in accordance with Part 6, unless the Court decides otherwise.

232. Such separation is warranted here. Service on respondents 2) to 4) via the Hague Convention was unsuccessful, as it could not be completed until the day of the oral hearing. Although respondents 2) to 4) are fully aware of the proceedings and have a copy of the application for provisional measures, as they were served with it in the UK proceedings, they did not instruct UPC representatives to represent them in these proceedings, nor did they accept service via the UPC representatives of respondent 1) (short “MGI”). In addition to that, [REDACTED] an employee of respondent 2), participated in the oral hearing on behalf of respondent 1) (short “MGI”). He was introduced as “Director of IP and Legal Department”. Normally, all this would warrant a decision pursuant to R. 275 RoP. However, such a decision can only be made on application by the other party, in this case Oxford. Oxford has not yet filed an application to this effect. The only alternative is to separate the case regarding respondents 2) to 4) and create a new case.

233. The subject of these new proceedings is claim 1 and claim 6 of EP 198 and claim 1 of EP 343. The Court estimates the value to be € 2 million. Oxford shall pay an additional fee. As the application is based preliminarily on a threat of infringement, the Court holds that no fee splitting should be done.

234. The Court holds that the arguments, evidence and exhibits which in Oxford’s view were filed late by MGI, as set out in Oxford’s application dated 11 August 2026, will not change the outcome of the proceedings even when admitted and considered, as shown above. Therefore, it is not necessary to decide on this application.

Use of the PMAC

235. As outlined during the oral hearing, the Court firmly believes that the various parties involved should endeavour to settle their disputes, including those related to the current proceedings, the separated proceedings, the main proceedings to be filed, the UK proceedings and the Australian proceedings. In order to address this matter, it is recommended that the parties involved consult with the PMAC to explore the various options available to them.

ORDER

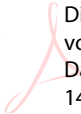
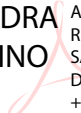
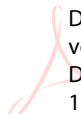
1. The proceedings against respondents 2) to 4) are separated. Subject matter of the new case is an application for provisional measures against respondents 2) to 4) because of actual or imminent infringement of claims 1 and 7 of EP 198 and claim 1 of EP 343.
2. Oxford is asked to initiate a new application for provisional measures in the CMS and to upload all briefs and exhibits uploaded by Oxford to case 2307/2026 to the new case to be created on the CMS within one week. Exhibits exclusively related to partly withdrawn patents or patent claims do not need to be uploaded.
3. The Sub-registry is asked to upload all servicing related documents and court orders of 2307/2026, including this order, to the new case.
4. The value of the present case is set at € 4 Mio. The value of the separated case is set at € 2 Mio. Oxford shall pay an additional court fee for this case and a court fee for the new case based on these values.
5. MGI is ordered to refrain from directly infringing claim 7 of EP 198, in particular by making, offering, placing on the market, using, or importing or storing for the aforementioned purposes in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.
6. MGI is ordered to refrain from directly infringing claim 1 of EP 198 by using in Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, or offering without the consent of Oxford, for use within these territories, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.

7. MGI is ordered to refrain from indirectly infringing claims 1 and 7 of EP 198 by supplying and/or offering to supply, without the consent of Oxford, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without a flow cell incorporated) or any other sequencer embodying materially the same sequencing technology and/or flow cells for use in such devices within Denmark, France, Germany, Liechtenstein, the Netherlands, Switzerland and the United Kingdom for use within these territories.
8. MGI is ordered to refrain from directly infringing claim 1 of EP 343 by using in France, Germany, Ireland, Liechtenstein, the Netherlands, Switzerland and the United Kingdom, or offering without the consent of Oxford, for use within these territories, the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with at least one flow cell incorporated) or any other sequencer system embodying materially the same sequencing technology.
9. MGI is ordered to deliver up to a bailiff appointed by Oxford, at its own expense, within two (2) weeks after service of this order, any cyclone devices (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells (including sequencing flow cells) for use with said cyclone devices and/or in stock and/or otherwise held, owned or in the direct or indirect possession of MGI in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom, in order to prevent their entry into or movement within the channels of commerce.
10. MGI is ordered to provide Oxford, within two (2) weeks after service of this order, with a written statement, substantiated with appropriate documentation of:
 - the quantities of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells manufactured, imported and/or stored by MGI in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom;
 - the origin of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencers embodying materially the same sequencing technology, and flow cells, including the full names and addresses of the legal entities that are involved in the supply to the respondents of the said cyclone devices, and the amounts of the said cyclone devices supplied to the respondents by each of those entities in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom; and
 - any orders for the supply of the CycloneSEQ-WT02, the CycloneSEQ-WY01, the G100-ER and the G400-ER (with or without flow cells incorporated) or other sequencer embodying

materially the same sequencing in Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and the United Kingdom, that have been received, including the full names and addresses of the legal entities that placed said orders, the sales price and the exact quantities of the said cyclone devices ordered in each case.

11. MGI is ordered to comply with items 5) to 8) of this order granting injunctive relief subject to a recurring penalty payment of up to € 70,000 for each infringing product in any territory of Germany, Denmark, France, the Netherlands, Ireland, Liechtenstein, Switzerland and/or the United Kingdom which results in violation of, or each violation of, or non-compliance with every granted injunction, plus up to € 20,000 for each subsequent day, a part of a day counting as an entire day, that the violation or non-compliance continues.
12. MGI is ordered to comply with items 9) and 10) of this order within the ordered deadlines, subject to a recurring penalty payment of up to € 400,000 for each day or part of a day of delay or non-compliance.
13. MGI shall bear 50 percent of the court fees of these proceedings. Apart from that MGI shall reimburse to Oxford 60 percent of the proportionate legal costs of Oxford's representation in these proceedings.
14. These orders shall be effective and enforceable immediately.
15. All other applications and requests are dismissed.
16. These provisional measures are revoked or otherwise cease to have effect, upon request of MGI, without prejudice to the damages which may be claimed, if, within a time period not exceeding 31 calendar days or 20 working days, whichever is the longer, from the date the complete information subject to item 10) is provided from MGI to Oxford, Oxford does not start proceedings on the merits of the case before the Court. For the case that main proceedings are filed parties are asked to reserve 26-29 October 2027 as dates for the main oral hearing.
17. An appeal may be brought in accordance with Article 73 of the Agreement on a Unified Patent Court and Rule 220.1 of the Rules of Procedure.

Done in Munich on 15 September 2026.

Dr Zigann Presiding Judge and Judge-rapporteur	Matthias ZIGANN  Digital unterschrieben von Matthias ZIGANN Datum: 2026.09.09 14:54:26 +02'00'
Lopes Legally Qualified Judge	RUTE ALEXANDRA DA SILVA SABINO LOPES  Assinado de forma digital por RUTE ALEXANDRA DA SILVA SABINO LOPES Dados: 2026.09.09 18:28:13 +01'00'
Dr Schnurr Legally Qualified Judge	INA SCHNURR  Digital unterschrieben von INA SCHNURR Datum: 2026.09.09 17:54:15 +02'00'
Dr Wadskov-Hansen Technically Qualified Judge	Wadskov- Hansen Steen Lyders Lerche  Digitalt signeret af Wadskov-Hansen Steen Lyders Lerche Dato: 2026.09.09 15:15:38 +02'00'
For the Deputy-Registrar	Catrin Meyer  Digital unterschrieben von Catrin Meyer Datum: 2026.09.10 13:25:15 +02'00'