

Bioinformatics and Digital Health including AI

January 2025

Introducing our cross-disciplinary team

We have worked with companies in the bioinformatics field for over 10 years and have built this team with the special requirements these types of cross-disciplinary inventions need.

The team includes:

- Biotech attorneys who have an academic background and patent experience in bioinformatics, biological statistics, and AI.
- Electronics and software attorneys who have a core background in software and AI, with further degrees and patent experience in biotech, software inventions, and AI.
- Mathematics attorneys with an applied mathematics background plus post-graduate research in biotech.

Because of this experience our team has in the middle ground between life sciences, mathematics, and software, we are well equipped to handle the varying complexity we see in these types of inventions: from complex biotech to complex AI/mathematics, and inventions with complexity from both sides.

When putting together a team for any client, the team will often contain an attorney from the computing side AND an attorney from the biotech side. We believe this makes us stand out from other firms, and allows us to provide robust patent drafting, prosecution, FTO and opposition work in bioinformatics and AI.

Our team has drafted patent applications for: AI cancer diagnostics; AI personalized medicine; AI microbe detection; and bioinformatics methods for analyses of microbiome sequencing and other types of sequencing including next generation sequencing.

Our team has successfully prosecuted applications for: in silico drug testing; bioinformatics methods for metagenomic sequencing; and mathematical methods for analysing abnormalities associated with diseases in samples.

We also have successfully defended key bioinformatics patents for clients in EPO opposition proceedings; and provided freedom to operate opinions on, for example, AI-based immunotherapy drug design and AI-based in silico structural analyses.

As well as patent attorneys, we also have IP solicitors as part of the team who specialise in trade secret protection. Trade secret protection is important to safeguard and show value in the databases companies in the AI field have.

In summary, we provide an overall package of tailored patent expertise with practical advice on patenting and/or trade secret protection in the bioinformatics and digital health space.

For more details on our specialised team, see below.



Roxna Kapadia

Patent Director & Bioinformatics and Digital Health Team Leader



Roxna is a UK and European qualified Patent Attorney with a technical background in microbiology and immunology. She has in-depth knowledge and experience with viral cancer therapeutics, antibodies, microbiome, stem cells, immunotherapy, genetics and food science. Roxna has in-house patent experience working at the small biotechnology company Oncolytics Biotech Inc. and at the multinational company General Electric Healthcare and Merck Sharp & Dohme.

Roxna has experience working before the EPO, UKIPO and WIPO, including drafting and filing applications, prosecution and EPO oppositions and appeals. Roxna also has extensive experience with IP due diligence, validity opinions and FTO analysis.

[More information about Roxna](#)
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Janine Swarbrick

Patent Director & Bioinformatics and Digital Health Team Leader



Janine's day to day work involves drafting and prosecution of patent applications related to many areas of physics, electronics, and computing-focused technologies. She co-leads the Electronics MedTech sector, engaging with clients working in the rapidly developing fields of MedTech, digital health, bioinformatics and FemTech.

Janine has extensive experience in helping clients (from local inventors to multinational companies) to protect inventions relating to physics-based fields including: computer systems and software (including for sensing and control of physical systems such as vehicles, medical devices, and RFID tracking technology); MedTech and digital health including bioinformatics, telecommunications (including mobile devices and 4G, LTE and 5G standards, user interfaces, network communications and messaging schemes), automotive technologies, including electric and autonomous vehicles, nanotechnology including 2D materials, and semiconductors.

[More information about Janine](#)
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Sofie McPherson

Patent Director & Bioinformatics and Digital Health Team Leader



Sofie is a Chartered UK and European Patent Attorney and her work includes providing strategic advice on how to protect inventions and to deliver solutions that are commercially focused and relevant to the client. She easily adapts to her clients' ways of working and takes a proactive role to support their needs.

Sofie specialises in MedTech, Digital Health and Bioinformatics. She has significant experience in software, artificial intelligence, sensors, wireless communication technologies and connected medical ecosystems in a range of medical applications including training, diagnostics and treatments. She also has great experience in online gaming, mobile phone apps, extended reality, and Internet-of Things. Much of Sofie's work also relates to telecommunications and standard essential patents, and her professional background includes working for one of the largest telecommunication providers.

[More information about Sofie](#)

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Chris Benson

Partner & Head of Electronics



Christopher seeks to understand a client's business and needs such that he is able to offer advice which enables clients to achieve their commercial goals. Chris has an academic background which enables him to work with world-leading inventors. In particular, he is able to advise on the patentability of software-based inventions.

Christopher has represented a full spectrum of clients from multinational companies to start-ups and academic institutions. From this he is able to work effectively with all types of clients. Chris has experience in working with inventors from academics to industrial R&D technologists. He has experience in not only the nuts-and-bolts of taking inventions through to granted patents in a wide variety of different countries including Europe, the US and China, but also in advising on patent strategy, patent enforcement and patent infringement defence.

[More information about Chris](#)

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Claire Green

Trainee Patent Attorney



Claire joined HGF's Glasgow office in January 2023 as a Trainee Patent Attorney within the Life Sciences team. She graduated from the University of Glasgow in 2015 with a first-class degree in Neuroscience, where she was a talent scholar. She also completed an MSc at the University of Glasgow in 2018 focusing on clinical statistics.

Claire completed a PhD in Precision Medicine from the University of Edinburgh in November 2022. Her research involved investigating epigenetic signatures of inflammation and their associations with structural neuroimaging phenotypes in major depressive disorder.

[More information about Claire](#)

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Matt Cassie

Partner & Patent Attorney



Matt has significant technical, academic, industry and professional experience to enable him to work with technologies across software and artificial intelligence, machine vision, in particular, and high tech including photonics and optics and quantum technologies.

Matt entered the IP profession having gained a First class degree in Astrophysics and a graduate degree in Optics and Photonics and after completing three years in commercial research and development.

He has drafted and prosecuted patent applications across the telecoms, cybersecurity, computer networking, consumer electronics, medical imaging, instrumentation and other sectors, with significant experience in handling oral proceedings and oppositions before the EPO, often in technically and legally complex cases.

[More information about Matt](#)

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Susan Keston

Partner & Patent Attorney



Susan has 15 years experience as a European Patent Attorney and she is undaunted by even the most complex of innovative technologies in the Electronics sector. Susan is a strategic thinker adept at disentangling complex legal scenarios in European patent law and formulating clear risk-evaluated options for resolving them.

Susan enjoys advocacy and has achieved good results for clients at Oral Proceedings at the European Patent Office at Opposition and before the Examining Division.

Susan's technical specialisms include software, processor and memory hardware, semiconductor technology, video and audio technology, wireless telecoms, consumer electronics, medical devices/software and Artificial Intelligence.

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Susan Riley

Senior European Patent Attorney



With a background in both physics and electronic engineering, Susan is comfortable working with a wide variety of subject matter. Her academic background is in solid state physics with a particular interest in semiconductor and magnetic devices.

Susan has a keen interest in artificial intelligence and has drafted and prosecuted multiple AI-related applications in a variety of fields, including telecommunications, bioinformatics and oncology. She particularly enjoys working with cross-disciplinary inventions which use AI for medical purposes. Her work in biotechnology has been praised by academics and clinicians alike for its high quality.

[More information about Susan](#)

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Stephanie Jackson

Senior Patent Attorney



Stephanie graduated with a degree in Physics from the University of York, and later completed a MRes degree in Neuroscience. After graduation, she spent time working in a small company specialising in instrumentation, illumination design and biometric systems.

Her work at HGF currently involves drafting and prosecution of patent applications in numerous areas, including telecommunications, networking and consumer devices.

[More information about Stephanie](#)

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Cassie Smith

Senior Patent Attorney



Cassie is a commercially minded Patent Attorney and works with a wide range of SMEs, Universities and large clients across the fields of software, electronics, automotive and medical technology. She joined HGF's Electronics team in October 2017, and qualified to become a Chartered Patent Attorney (UK) and a European Patent Attorney in 2021.

Cassie has a particular interest in investor due diligence work and EPO oppositions, as well as being experienced in patent drafting and representing clients before the UKIPO and EPO across a variety of electronics and computing technologies. She has particular experience in the issues surrounding drafting and prosecuting computer-implemented inventions.

[More information about Cassie](#)

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Michelle Davies

Partner & IP Solicitor



Michelle is a highly experienced transactional IP specialist. Michelle provides strategic and transactional IP advice to clients in a wide range of sectors and has specific expertise within the pharmaceutical and life sciences sector having worked 12 years with AstraZeneca and with a BSc in Pharmacology & Physiology.

Michelle is experienced in the drafting and negotiation of a whole range of agreements including licensing, co-development, clinical, manufacture, services and supply contracts and has provided IP advice on a number of major corporate licensing transactions, acquisitions and business sales and works regularly with many educational institutions and their spin-out companies.

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Christie Batty

Senior IP Solicitor



Christie has expertise in both complex multi-jurisdictional litigation and in a broad range of licensing agreements.

Christie advises clients in relation to each of the core IP disciplines and has advised clients in enforcement actions issued in the IPEC, High Court and Court of Appeal. She also has experience of settling contentious, multifaceted disputes on favourable commercial terms for her clients.

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