

HOW TO

**Protect and create
impact for your invention**



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Thinking of patenting your invention?



Technological developments move apace. In a rapidly evolving competitive world, translating innovations to market can be a daunting task. UCLB is here to help mitigate the risks.

It takes a highly skilled and experienced team to help protect your idea, build a business and attract investment to move an invention towards the market.



Over the past 30 years, UCLB has helped world-leading technologies developed at UCL to deliver real world impact. In this guide, we will cover one of the most powerful mechanisms for intellectual property protection – patenting.

What is a patent?



A patent is a form of intellectual property (IP) where a government confers a right for a set period – typically 20 years – to exclude others from making, using, or selling an invention without a licence.

A patent application can be made for a new device, therapeutic, material, diagnostic, process or method. Increasingly, this includes computer-implemented inventions such as the application of AI models. In some instances, a new use of an existing compound or apparatus – or a new combination of known materials – may be patentable if it is significantly advantageous.



Before an application for a patent is made, the invention must remain a secret. A public disclosure (conference presentation, seminar, poster, publication – including electronic pre-print) of the invention will, for the most part, negate the ability to gain patent protection.



“As an academic with no previous training in the commercialisation process, UCLB’s guidance and advice has been crucial in our spinout activities”






Professor Ahad Rahim
UCL School of Pharmacy



Why should I patent my UCL technology?



There are numerous reasons:

-  Patenting can increase the translation of your research into societal and economic impact.
-  As part of the UCL Academic Careers framework, filing of patent applications and engaging in translational activities are recognised as indicators of the impact of your research.
-  Attract more research funding: funders consider the potential to protect and commercialise research outputs when assessing a grant application. Indeed, most grant applications today include a section on IP creation and commercialisation.
-  Attract industrial partners and collaborations: an industrial partner is more likely to want to collaborate if they know the research outputs are / will be protected so as to give them the option for exclusive rights thereby giving them some competitive advantage over their competitors.
-  Create a spinout company. As with licensing to industry, IP in the form of patents helps the spinout to build its competitive moat. A patent is a tangible company asset and helps make the business more attractive to investors.

UCL's revenue sharing policy ensures inventors stand to benefit when UCLB licenses the IP to third parties for commercial return.

UCLB covers all fees related to obtaining a patent. However, the decision to patent depends on the commercial viability of the opportunity and the commitment of the inventors to develop the IP to a stage where it is of interest to a licensee or investor. UCLB is unable to support patent filings solely intended to bolster a grant application or promote the research of an individual or lab.

What makes my idea patentable?



For an invention to be patentable, it needs to fulfil these five essential criteria:



The invention must be novel.
This means that it has not been described or demonstrated in any way, shape or form in the public domain.



The invention must be something that can be made and used, a technical process, or a method of doing something.



The patent application must include evidence that the invention works and give sufficient detail for a skilled person to reproduce the invention with only routine effort.



It must not fall into an excluded category.
For example, mathematical methods, computer programs, artistic creations, medical treatments and diagnostic methods performed on a person or animal, and biological processes to produce plants or animals.



The invention must be inventive.
This means the solution provided is non-obvious to a skilled person in the field. For example, painting a device a different colour is unlikely to be considered inventive, but a formulation of paint that dries faster, or holds its colour better under radiation, might be.

How involved would I be with the patent process?



The patenting process can take a number of years until a patent is granted. It is important you remain part of the patenting strategy and the examination process in steering the application in the best possible way. This will involve:

- > Working with the UCLB-appointed patent attorney to draft the patent application. This will ensure that document captures the true invention and that the patent claims actually define what is commercially important.
- > Providing supporting evidence to patent examiners if required (as advised by your UCLB Business Manager) to counteract objections to the claimed invention and/or rephrase the claims to satisfy the regional requirements in each territory.
- > Being a signatory to documents enabling a patent application to proceed in specific territories.

Who owns IP?



As with any employment, the employer owns the IP generated by its employees and this is also true for academics at UCL. As such, UCL has a defined IP Policy and through UCLB has the resources to secure and protect its IP.

The situation is different for UCL students (as they are not generally employees of UCL) – they typically own the IP that they generate, although there are exceptions which are explained in the UCL IP Policy.

UCLB commercialises UCL's patentable and non-patentable IP*.

Ownership of the IP is legally transferred to UCLB in preparation for future commercial licensing to third parties including spinouts. This transaction is underpinned by other legal documents that recognise the contributors to the invention.

*Non-patentable IP can include registered design rights, trademarks, copyright, database rights and trade secrets.

What are the routes to market with my invention?



Here's an overview of some of the routes.

Creating a new 'spinout' company

If a spinout route is considered feasible and a founding team has started to come together to drive the business forward, the UCLB Business Manager will work with the founding team. Each spinout is unique in the amount of support required. The UCLB Business Manager will work on a case-by-case basis. These activities can include:

- > **Business planning:** Developing a robust business plan outlining the commercial strategy, market, financial projections, and operational plan for the new venture.
- > **Company formation:** Legally forming the new company, including setting up the corporate structure, governance, and initial operations.
- > **Securing investment:** An experienced UCLB Business Manager will sit on the board of the company and be integral to formulating the pitch to raise investment. This may also include an element of grant funding.
- > **Development and growth:** Scaling up the company's operations, developing the technology or product, and expanding market reach.
- > **Commercialisation:** Bringing the product or service to market, achieving sales, and driving growth. In a number of market sectors the spinout may be acquired by an established company before this point.
- > UCL and UCLB support the recommendations of the USIT (University Spin-out Investment Terms) Guide as recommended by the UK government's 2023 Independent Review of University Spin-out Companies.

Portico Ventures

The Portico Ventures model offers UCL researchers two options for creating a spinout company based on non-patentable IP developed at UCL. Both provide spinout companies with an exclusive and royalty-free licence.

If you've set up a business in the past or worked with corporate partners, and you have the skills, knowledge and contacts to develop your research into a profitable spinout company, you may opt for the founder-driven option. UCLB will be allotted 5% equity in the spinout company (non-dilutable through the first £1m of funding), leaving 95% equity for the founding team and option pool.

If you're a first-time entrepreneur, the UCLB tailored support option offers more hands-on advice and guidance from the experienced UCLB team including help to develop a business plan and pitch, identify investment opportunities or build your founding team. In this case, UCLB will be allotted 10% equity in the spinout company (non-dilutable through the first £1m of funding), leaving 90% equity for the founding team and option pool.

Licensing

Licensing is a legal contract granting permission to a third party (the licensee) to use the patented technology, innovation or other IP, under specified conditions.

This allows the commercialisation to take place without having to directly engage in manufacturing, marketing, or distributing the product or technology.

'Express licensing' using UCLB's XIP portal

XIP is UCLB's dedicated website enabling online licensing of UCL's IP, including software, materials, cell lines, datasets and copyright materials (such as healthcare guides and questionnaires). It provides clear information for third parties regarding terms and pricing associated with each IP licence and allows for a fully automated checkout process.

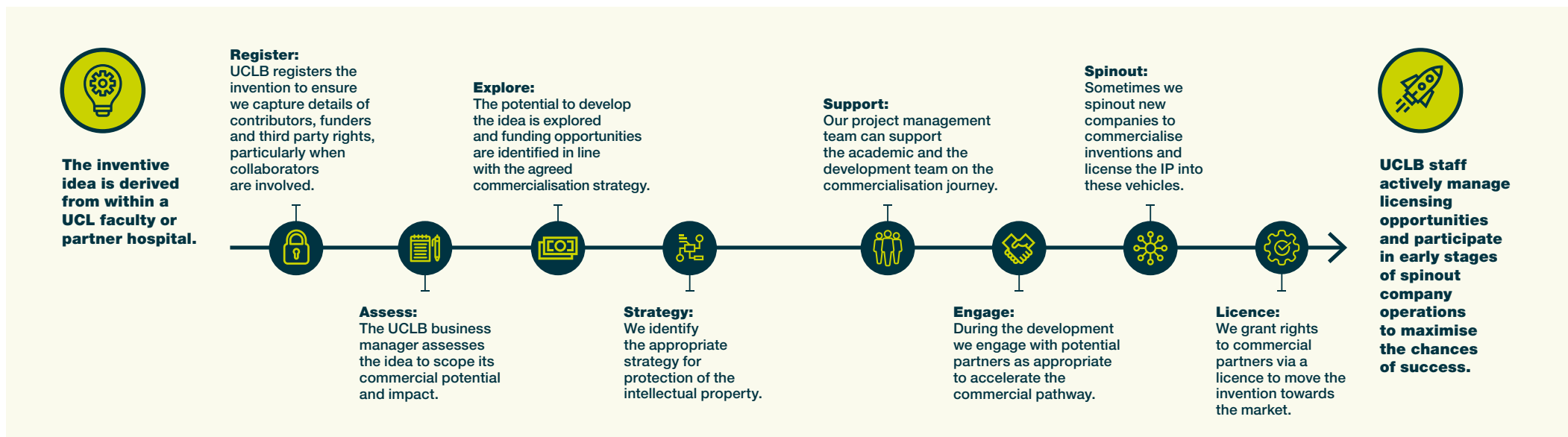
UCLB will work with you to bring commercial IP to market.

IP Management: Identifying, protecting, and managing intellectual property licencing agreements with industry partners.

Consultancy Services: to guide academics in how to provide consultancy services based on their expertise.

Collaboration: Promoting collaborations between academics and industry.

From lab to market: your commercialisation journey



Common questions



The following are some common questions UCLB receives regarding patenting.

Will I have to pay for IP protection and associated business support?

No. UCLB will cover all of these costs.

Can I both patent and publish my research?

You can publish your work once UCLB has advised that your patent application has been filed, however the patent office does not itself publish your application until after the priority year has expired and there are some benefits for withholding your own related publications until that time, which you can discuss further with your Business Manager.

Can all authors on a publication be attributed as inventors on a patent?

No. An inventor is defined as someone who has contributed to the ‘inventive concept’ and not someone carrying out duties under the instruction of another.

Is a patent only valid in the countries where it is granted?

Yes. There is no such thing as an international patent that provides global protection.

Does a patent give you automatic rights of exploitation?

No. A patent may give you the right to stop others using the invention as defined in the claims. However, to practise the invention, you must not be in infringement of another party’s intellectual property rights (freedom to operate), for example if your invention builds on someone else’s patented invention.

Does a patent stop others from performing further academic research on the patented matter?

No. The research exemption states that researchers performing academic research are immune from patent infringement as long as the research is not intended for commercial use.

What are the next steps?



At UCLB, we support academics to take new technologies and discoveries from the early stages through to market. The process is straight forward:

Contact your UCLB Business Manager.



Remember: Keep it a secret – any public communication of the invention will invalidate it for patent protection.

1. Your Business Manager will ask you to complete a confidential Invention Disclosure Form (IDF) – the IDF captures the details of the technology, the inventors, funding sources and your thoughts on the commercial applications of the research.
2. Your Business Manager will work with you to conduct a thorough investigation to assess the ability to patent the invention, the strategic position of the patent filing and the commercial potential (this may take several months and require further information from you).
3. Feedback will be provided to you on the outcome of this process.
4. If we believe there is a commercially viable application, UCLB will appoint one of our trusted patent attorneys to develop and file a patent application.
5. If the invention does not meet the patentability criteria, guidance will be given regarding other options for protection.
6. Once the patent application is confirmed as filed, you may publish or otherwise discuss your invention publicly if you wish.

Ready to take the next step?

**Your department UCLB Business
Manager is keen to hear more
about your research!**



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