

17: Identification and protection of Intellectual Property

17.1 Introduction

Both Queen Mary and Barts Health undertake activities that enable both parties to make progress in our understanding of the world and wish to ensure that any discoveries are developed to bring a benefit to society and the world. In order to ensure this can happen both organisations recognise the need to protect their intellectual property.

This IP policy has been created to inform staff members of the importance of IP protection and subsequent exploitation and advise how Barts Health undertakes to manage this. It protects both the interests of Barts Health and its staff.

It is incumbent upon Barts Health to exploit, whenever possible, anything that is produced by its employees or contractors where that product has potential commercial value or could lead to a new service development or create new efficiencies or savings.

17.2 Barts Health Intellectual Property Policy

17.2.1 Definition of IP

Intellectual Property (IP) can be defined as, but is not limited to inventions, designs, project results, prototypes, systems, processes, formulae, publications, internal reports, natural discoveries, ideas, knowledge or know-how. Types of IP include Copyright, Registered Designs and Design Rights, Patents, Trademarks, Database rights and Know-how.

IP is often described as being either Background IP or Foreground IP:

Background IP is all the IP that is relevant to a collaborative venture or project that is supplied by the parties at the start of the project. The usual ownership position with regards to Background IP is that the party that has created and supplied it will retain ownership of it and any improvements made to it during the course of a project.

Foreground IP is all the IP produced within the collaborative venture or project during its lifetime. Ownership of Foreground IP must also be formalised within a contract to avoid the default position of joint ownership between the parties arising, which can create unwanted restrictions on how Barts Health may commercialise any Foreground IP.

17.2.2 Application of Barts Health IP Policy

This policy applies to Barts Health staff and contractors working on behalf of Barts Health. The policy is to be regarded by Barts Health staff as the default position with regards to IP ownership. Although the policy refers to the most beneficial position for Barts Health in terms of IP ownership and subsequent income sharing, it is understood that it will not always be possible to achieve this.

Staff who are authorised to sign contracts with third parties, such as research or collaboration contracts, must consider and, if necessary, seek advice relating to IP matters before signing contracts.

17.2.3 Ownership

Barts Health employees have certain obligations relating to IP within their contracts of employment. The arrangements for the protection of Barts Health IP for contracted staff should include an undertaking to comply with the Barts Health IP Policy.

All IP made, written, designed or originated by staff during the course of employment with the Trust and in connection with their appointment shall be the property of the Trust to the fullest extent of the law. Staff should not make commercial use of services or products developed in the Trust's employment without the prior agreement of the Trust.

Staff should immediately disclose to the Trust, using the appropriate disclosure form, full particulars of any IP made, written, designed or originated by them during their employment with the Trust irrespective of whether it was so made or discovered during normal working hours or using the facilities of the Trust.

Staff must not register IP in their own name or make commercial use of services or products developed in the Trust's employment without the prior agreement of the Trust.

Staff waive all present and future moral rights in any copyright works in favour of the Trust and agree not to support or maintain nor permit any claim for infringement of moral rights in such copyright works.

Where an individual holds an honorary contract with another organisation but that individual's principal employer is Barts Health, then the ownership of any IP arising from their work is vested in Barts Health.

17.2. 4 Contracts

In circumstances where Barts Health is working in conjunction with another organisation the IP position will need to be determined within a collaborative agreement prior to the commencement of a project. In determining the position, the interests of Barts Health must be taken into account and ownership should be dictated by the level of input that the organisations have into the generation of IP.

All collaboration contracts will require review by the Trust before receiving final authorisation to ensure that Barts Health receives an adequate revenue share or if applicable, rights of ownership in IP arising from the collaboration.

Barts Health would advise that joint ownership of IP is avoided. Joint ownership of IP has the potential to present problems for the parties owning IP as they are not permitted to assign, licence or subcontract to third parties without the consent of the co-owner. As stated above it is advisable that ownership is agreed by specific contracts between the two parties prior to IP being created.

Should Barts Health decide not to prosecute a particular aspect of IP, ownership rights will be assigned to the individuals who have been instrumental in its generation. Where the Trust agrees to assign IP ownership rights to an employee an Assignment of Rights Agreement will be concluded. In these circumstances, the individuals will be free to take whatever action they deem necessary at their own expense to protect and exploit the IP without further involvement of Barts Health.

Where third parties request the use of Trust trademarks or logos, they should obtain the prior written agreement from the Trust and agree to its control, typically by a Licence. Use of Trust trademarks and brands must be in line with the Trust's Brand Guidelines.

The JRMO is responsible for negotiating research contracts including all IP aspects. The JRMO is also responsible for advising on intellectual property matters, with the involvement of the Trust Commercial & Business Development Team, in all other commercial contracts that involve the Trust IP.

A contract is usually the major mechanism for protecting Barts Health's IP. All contracts and agreements for research projects taking place on Barts Health premises and/or utilising Barts Health resources must be reviewed by the JRMO.

The JRMO reviews all contracts and agreements to ensure adequate protection of its IP, including clarification of ownership. The JRMO will decide whether to accept or decline a contract proposal on behalf of the Trust. Ownership of both Background IP and Foreground IP must be formalised.

Where ownership of the IP does not vest in Barts Health, contracts should clearly set out:

- The distribution of income received from any commercialisation to the various parties;
- The level of each party's contribution to the development of the IP; and
- How any costs associated with protection of the IP should be borne.

Once a contract has been reviewed and agreed by the JRMO it must also receive authorisation by an authorised Barts Health Officer.

Failure to inform the JRMO of any contractual arrangement may make individuals liable under Barts Health's Policy on Misconduct in Research (see policy number 24).

17.2.5 Duty to keep records

Although it is difficult to establish when, from a concept or idea, a clearly definable piece of intellectual property emerges, it is vital that during the course of a research project the results are clearly recorded.

Employees, who are investigators and their fellow or subordinate researchers, as the research progresses, will keep laboratory notes to a standard format.

Once research into a concept or idea results in definable conclusions the outcome will be clearly recorded through an appropriately structured report.

Where an outcome has a potential commercial value, the report will be sent to the JRMO or a specifically designated individual for review and evaluation.

The potential commercial value of the IP will be assessed by Barts Health and, if necessary, action taken to protect the IP and initiate the commercialisation process.

17.2.6 IP Protection

Barts Health has a duty to adequately protect its IP. Ensuring that effective protection is maintained can only be guaranteed with the co-operation of its employees.

As all Barts Health employees (and appointed contractors) have a duty of confidentiality as stipulated within their employment contracts, they should not make public any confidential or unpublished information pertaining to the research they or their colleagues are undertaking.

The reason for this is that premature disclosure of research or ideas could have the effect of preventing the IP from being protected or ensuring that Barts Health has sole use and right to commercialise it. Employees should be aware that premature disclosure can be inadvertent and could arise through:

- Publishing in a thesis;
- Articles in journals;
- Presentations at lectures;
- Public use of the IP; or
- Social Media platforms.

Before discussions can begin with potential external partners a confidentiality undertaking will be concluded between Barts Health and the external organisation and signed on behalf of Barts Health by an authorised officer and the employee. This is typically via a Non-Disclosure Agreement (NDA) for which standardised versions are available.

All visitors to Barts Health's work sites whom are not employees of Barts Health will be required to sign a confidentiality agreement before they obtain access to sensitive research areas.

One of the ways that IP is automatically protected is via Copyright. Copyright is an unregistered right that arises automatically upon creation of books, computer programmes, publications, lecture notes, reports, laboratory notes, social media material etc. Although the right arises automatically, in order to make others aware of the Copyright it is advisable to add a note at the end of the text to the effect that Copyright belongs to Barts Health NHS Trust and this will protect all such texts.

Where, in the view of Barts Health, a piece of IP requires patent protection, Barts Health's patent attorneys will be approached to draft a specification and submit an application to the Patent Office. Such action will be taken only if a clear commercialisation route can be identified and forecast income streams exceed the costs of patenting.

Other areas of IP protection that Barts Health may consider protecting its IP include registering designs and applying for trademarks with the Intellectual Property Office.

17.2.7 Publication

Barts Health understands the importance of disseminating the results of its R&D activities, for the public health benefit and to further its research strategy. However, it is important that any IP contained in published material has been adequately protected to ensure that Barts Health's ability to successfully commercialise any potentially valuable IP is not compromised.

The JRMO and Commercial & Business Development Team will continue to raise awareness of the importance of protecting the Trust's IP and to seek to avoid the inadvertent release of IP by individual staff members through both this policy and also through training materials.

Staff are encouraged to consult the JRMO before articles are submitted for publication or information is disclosed to a third party where they believe that potential Trust IP exists or where the staff member needs confirmation that no Trust IP will be released inadvertently.

Where there is a deliberate release of Trust IP without prior approval of the JRMO this could be considered a disciplinary matter.

Should protection be required the JRMO will take steps to ensure that such protection is put in place before publication of the research findings.

The JRMO will ensure that any delays in publication required in respect of this policy will be minimal and in no circumstances shall such delays exceed 6 months from the date of receipt of the article.

17.2.7 Commercialisation

There are a number of ways that Barts Health can exploit IP that it has developed. The principal methods of exploitation are as follows:

- Assignment of the IP rights to a commercial organisation: this would be a sale of the IP rights to another organisation
- Licensing Agreements: where companies are licensed to utilise Barts Health IP in exchange for a royalty based on the value of sales the company makes, enabling Barts Health to impose certain conditions on the use of the IP Rights
- The creation of spin-out companies that can then proceed to exploit the IP rights more freely than Barts Health may be able to, which will need to take into consideration current national regulations and guidelines

Other options might include:

- Sale of IP rights in exchange for specific initiatives for example funded posts, purchase of capital equipment.
- Through joint ventures with other non-commercial organisations, for example medical charities, local authorities.

The JRMO will take overall responsibility for ensuring that Barts Health's IP is made available to potential partners.

The decision to pursue a commercial development will rest with the Group Chief Medical Officer and the IP Management Oversight Group. The resources that NHS bodies devote should be commensurate with the likely benefits and with other calls on their funds.

17.2.8 Remuneration for inventors

Barts Health recognises that staff involvement with the development of its IP should be rewarded through a share in the proceeds of any successful commercialisation.

To enable this the proceeds are measured in terms of total Cumulative Net Income, and this is defined as the income received minus any patent or other protection costs, legal fees, relevant taxes and any relevant expenditure by Barts Health.

The inventors share will be as shown below:

Total Net Cumulative Income	Inventor's Share	Barts Health Share
	%	%
0 - £10,000	90	10

£10,000 - £50,000	75	25
£50,000 - £200,000	50	50
£200,000 +	30	70

The Trust IP policy version that is valid on the date on the disclosure form, will determine how income will be shared between the inventor and the Trust.

Where multiple inventors (Barts Health employees) are involved in the creation of IP, the inventor's share shall be split between the inventors having regard to the level of their input. If, following discussion amongst the inventors, a split cannot be decided, it shall be determined solely by the Group Chief Medical Officer or other authorised Director.

In dealing with Barts Health exploitable intellectual property, the JRMO will bring to the notice of inventors and all those involved in the commercialisation process, Barts Health's policy on Standards of Business Conduct. The internal regulations in this policy will be strictly followed, particularly with regard to potential conflicts of interest.

17.3 Queen Mary policy (*Subject to a separate review by QM Innovation*)

17.3.1 Introduction

Queen Mary affirms the inherent value to its mission of research and its applications and their core role in our primary commitment to the public good.

Queen Mary will foster the free and open creation and dissemination of Intellectual Property or Know-how (IP) and its best use; this will include a clear framework providing for the allocation of time and resources to the authors or creators of IP, and generous terms for the allocation of the financial benefits of the commercialisation of that IP to those authors or creators.

This policy is based on the following principles:

- That IP produced at Queen Mary should be used in the public interest in general, whilst recognising that it may be appropriate for Queen Mary and/or inventors or authors to gain financial benefit from its commercialisation, with those benefits being defined so as to encourage those inventors or authors to commercialise that IP;
- That it is required to protect the traditional rights of scholars concerning their work and to encourage the free and open creation and dissemination of works produced by researchers and scholars;
- That any significant financial or other resource support by Queen Mary for the development of any IP should be identified, and that recognition should be made of Queen Mary's responsibility as a charity and recipient of government and charity funding to realise appropriately and proportionally any gains from that development, for the benefit of its future staff and students; in making use of significant Queen Mary resources for the development of any IP, a Queen Mary employee is accepting the terms of this policy;
- That the work done by academic staff in the creation and/or commercialisation of IP covered by this policy should be recognized in staff appraisals and assessments of workload and promotion.

The full Queen Mary Policy on Intellectual Property comprises this summary document as an overarching guide, together with any approved subsidiary documents covering particular areas in more detail.

17.3.2 Inventions

“Inventions” are any research outputs that can be reasonably identified as having commercial potential including patentable or potentially patentable discoveries or ideas and any associated technology required for their development or application.

All rights in Inventions created by a Queen Mary employee in the course of their employment, or otherwise but with significant use of Queen Mary resources, will generally belong to Queen Mary.

If an employee or employees of Queen Mary create an Invention outside the course of their normal employment duties, without significant use of Queen Mary resources, then that Invention will belong to the employee or employees, jointly if not otherwise agreed.

Ownership of Inventions created by an employee or employees of Queen Mary with an external body will be determined by a Queen Mary-approved agreement; where this has not been defined in advance, ownership will in the first instance belong to Queen Mary.

17.3.3 Academic works

"Academic Works" are those writings, research outputs other than Inventions, and other productions (for example video or audio recordings) that are aimed at communicating the progress or results of research or scholarship. The IP rights to the Academic Works created by individuals whilst Queen Mary employees, and the rights to any revenues derived from these, remain with their authors, however, Queen Mary has a licence to use those works and a right to sub-licence their use, in order to advance its higher educational mission ("Academic Purposes"). This is a condition of Queen Mary waiving its rights of ownership of the relevant IP.

Where Queen Mary involvement in the creation of an Academic Work consists of significant investment of additional funding or resources outside of the normal course of employment, then ownership and rights to any share of royalties or income shall be fairly apportioned between Queen Mary and the author/s.

Where Academic Works are created subject to an agreement between Queen Mary and a third party then any copyright issues will be handled according to the terms of such an agreement.

17.3.4 Teaching and administrative materials

“Teaching Materials” and “Administrative Materials” are any materials produced by Queen Mary employees in the course of teaching and administrative work, respectively, undertaken in the course of their employment.

Queen Mary agrees and acknowledges that all performers' rights in any Teaching Materials, including any video or other recording of a Queen Mary employee's lectures or presentations, or similar works which are performances in IP terms, are owned by the employee. Each employee grants Queen Mary rights to use such materials, and their recordings, for Academic Purposes.

Queen Mary owns the IP rights to Teaching Materials and Administrative Materials, whilst granting use of those materials by their creator for any purposes consonant with their Queen Mary employment.

With regard to Teaching Materials produced whilst they were in Queen Mary employment, Queen Mary grants any former employee the personal licence to unrestricted non-commercial use of that material elsewhere. This includes the use of that material as the basis for creating new teaching materials for another academic institution.

If Queen Mary decides to commercialise Teaching Materials outside its Academic Purposes, then those Queen Mary employees involved in their creation will have a fair and reasonable share of the proceeds of commercialisation.

A current or former Queen Mary employee may object to the use by Queen Mary of Teaching or Administrative Materials in cases where they are identifiable as a creator if the use of that material is felt to be to their detriment or misrepresents the creator. The Queen Mary IP Committee will rule on such objections.

If a current or future employee wishes to commercialise Teaching Materials, the agreement of Queen Mary is required, but will not unreasonably be refused. The terms of such agreement, which might include a share by Queen Mary in the proceeds of commercialisation, should be negotiated with Queen Mary Innovation (QMI).

17.3.5 Performances

IP ownership of recordings of creative performances, such as dramatic or musical performances, remains with the performer/s. For performances created by Queen Mary employees in the course of their employment, Queen Mary has automatic permission to use those works for Academic Purposes. For joint performances involving third parties, IP ownership will be according to prior agreements among those parties.

17.3.6 Software and Databases

Queen Mary recognises the value of open-source software and open data, and the related licensing arrangements, for promoting knowledge creation and dissemination.

Software or databases that are created as part of the process of communicating the progress or results of research or scholarship, and that do not have reasonably foreseeable commercial potential, are to be treated as Academic Works under this policy. Any software or databases created by Queen Mary employees in the course of their employment that may reasonably be foreseen at any given time to have commercial potential shall be treated as Inventions from that point under this policy. Any cases of doubt should be referred to the Queen Mary IP Committee for a ruling.

17.3.7 Student creations

The IP rights to works created by Queen Mary students, including Inventions, are in general owned by the creator/s, with Queen Mary having permission to use them for Academic Purposes. If student works are created in connection with an agreement with an external body IP ownership will be determined by that agreement. If the works are created whilst the student is in employment using Queen Mary funds, or whilst using significant Queen Mary resources, then Queen Mary owns the IP rights. This includes cases where the student work is largely designed and led by a Queen Mary academic or academics, which could include research or other project work.

Notwithstanding the above, Queen Mary may from time to time provide financial and other resources through entrepreneurship schemes, competitions and initiatives with which its students can engage. Queen Mary may, at its discretion, choose to agree to joint ownership

or to waive its claim to any IP generated through such activities in favour of the students. Any such agreements will be set out in the relevant terms of the internal scheme, competition or initiative.

17.3.8 Other staff and associates

The rights to all IP created by non-academic staff (staff without teaching or research as a major component of their contract), in the course of their employment or with significant use of Queen Mary resources, are owned by Queen Mary.

Unless agreed otherwise in any contract between Queen Mary and a third party, Academic Works and Inventions arising from the non-clinical work of clinical academics on Queen Mary contracts shall be treated in the same way as those arising from the work of academic staff. Those arising from the clinical work shall be treated under the terms of the contractual agreement with the appropriate health authorities; where these are not described the Queen Mary policies shall apply.

Academics or researchers who are affiliated with but not employed by Queen Mary (“Associates”) are generally required to transfer to Queen Mary any IP they create using Queen Mary resources in the course of their affiliation. Such Associates will be treated as if they were Queen Mary employees for the purposes of sharing revenue.

17.3.9 Disclosure

Queen Mary employees are required to disclose in a timely fashion all Inventions or other works of foreseeable commercial value that have been created in the course of their normal duties of employment with Queen Mary, or during joint work with an external body, or where significant use of Queen Mary resources has been made. Student Inventions where the IP is owned by Queen Mary under Section 7 should also be disclosed. All such disclosures should be made to QMI.

Information relating to Inventions or other works that could reasonably be foreseen to have commercialisation opportunities should be treated by Queen Mary staff and students sensitively and disclosed only to relevant Queen Mary employees prior to protection by a suitable agreement.

Each School or Institute of Queen Mary should have a policy for encouraging innovation and achieving impact for its research and scholarship; this policy should cover the operation of a system that identifies any non-commercial use for the purposes of impact and discloses to QMI any works by members of their staff or (where relevant under Section 7) student body that have the potential for commercial use.

17.3.10 Commercialisation

Queen Mary’s policies on the commercialisation of Inventions created by Inventors also apply in general to other works with commercial value created by authors, subject to any specific statements made within the IP Policy.

QMI, acting on behalf of Queen Mary, is responsible for the identification, evaluation, protection and commercialisation of Inventions owned by Queen Mary. Whilst this may not necessarily involve purely maximising financial return in general, QMI will work with the Inventors to identify appropriate third parties to commercialise the Inventions or works under the best terms.

QMI will agree with the Inventor(s) a strategy for the development, protection and commercialisation of an Invention. This will include an agreement with the Inventor's line managers covering the appropriate recognition of, and allowance for the time and other resources required for such activities.

Neither Queen Mary nor QMI will promote or commercialise any Invention that would clearly conflict with any ethical policies agreed by Queen Mary, nor with the ethical principles of the Inventor/s.

Queen Mary recognises that commercialisation of IP may not always be appropriate and that on occasion it is in the best interests of knowledge transfer or exchange to place IP in the public domain.

If QMI decides not, or is unable, to commercialise the Invention within a reasonable timeframe then the Inventor(s) may ask for it to be assigned to them. Such assignment will include a licence back for use by Queen Mary.

Queen Mary shall be solely entitled to use its name, trademark, service mark, corporate name, domain name or any other mark in respect of commercialization of any product or service.

17.3.11 Benefits

Queen Mary owns the revenues received from Commercialisation of its Inventions or other works, however, in the spirit of the principles in Section 1, the following sharing arrangements shall apply. Where more than one author or inventor has played a significant role in the creation of an Invention and there is no prior agreement amongst them on the sharing of benefits then the Inventor benefits shall be shared equally between the Inventors. The sharing of Net Revenue from any works not covered by sections A and B below shall be consistent with the arrangements described and in line with the principle that the inventors or authors will have a fair and reasonable share of the proceeds of commercialisation.

A. Sharing of Revenue from Licence/Sale of Inventions

The income to be shared between Queen Mary and the Inventor(s) is defined as the cumulative Net Revenue from the licensing of Inventions, or from the total amount of the sale, to a third party. The following shall be deducted in calculating the Net Revenue: VAT, any patent protection or legal costs, any revenue sharing costs, employer tax liabilities, and any other expenses directly related to obtaining or commercialising the Invention (excluding QMI staff resource costs or any Queen Mary funds contributed to developing the Invention).

In the following, "Significant Internal Funds" means a total sum in the region of £50,000 from Queen Mary funding streams and/or patent and other legal expenditure, and "Significant QMI Resources" means an agreement reached with QMI on the strategy, means and likely timescales for commercialisation, and the reasonable efforts, normally within a one to two year period, by QMI to deliver on this including, but not limited to, seeking translational development funding, leading on new spinout investment, or marketing and negotiating licenses with third parties.

Where an Inventor or Inventors makes no use of Significant Internal Funds or Significant QMI Resources then they will have 90% of Net Revenue. Where use is made of either Significant Internal Funds or of Significant QMI Resources, then the Inventor/s will have 70% of Net Revenue. Where both such Funds and Resources are used then the Inventor/s will have 50%. The percentages or amounts under conditions where significantly greater or

subsequent funds or resources are to be utilised will be determined by prior agreement between QMI and the Inventor/s.

The Queen Mary share of Net Revenue will be apportioned between Queen Mary and the Resource Centre. The latter will be held at the Faculty level and normally allocated to the School or Institute of the inventor(s), with a significant proportion of that allocation going to the research area of the inventor(s). Where the Queen Mary share of the Net Revenue upon sale, or cumulative license income, is less than £1,000,000, then the Resource Centre will be allocated the entire Queen Mary share. The distribution of any Queen Mary share that is in excess of these amounts will be decided by the Queen Mary Senior Executive.

B. Sharing of revenue arising from the formation of a new spinout company

Where any Invention is commercialised through the creation of a new spinout company, the academic founder benefits will be represented by shares in the spinout company.

For clarification, Queen Mary benefits are those realised from the sale of shares in the new

- deviation from agreed formal protocols or regulations, including accepted professional standards of behaviour and conduct, in carrying out research, and the failure in that context to avoid risk or harm to humans, animals used in research, and the environment where appropriate;
- The facilitation of misconduct in research or collusion in, or concealment of, such actions by others;
- The intentional and unauthorised use, disclosure of, removal of or damage to research-related property of another researcher, including:

intellectual property, writings, data, apparatus, materials, hardware, software, any other substances or devices used in or produced whilst conducting research, infringement of data protection requirements or the confidentiality of research subjects, misuse or misappropriation of the work of others and, for example, the unethical use of material provided in a privileged way for review or assessment.

This policy applies to Barts Health and Queen Mary as indicated.