Guidelines to Designation of Inventorship

‘Authorship’ and ‘inventorship’ are not synonymous; the two being governed by different criteria.

A peer reviewed publication confers upon the authors the responsibility for data gathering and interpretation, validation and overall integrity of experimentation upon which conclusions are drawn. Accordingly each and every author is ultimately accountable by association with the publication. No person can be cited as author without prior consent of that individual. Conversely no person should be cited as author without having satisfied certain criteria and scholarly norms including for example: conception of idea; participation in experimental design; execution of experimentation or hands-on laboratory work in a manner beyond following direction; data analysis and interpretation and/or actual redaction of the manuscript for publication.

In contrast to peer reviewed publications, the issuance of titles to a patent is governed by regulations enshrined patent laws of a particular country where patent protection is being sought. It is also a lengthy and costly process and should be undertaken with prudence and careful consideration of objectives. Patent laws of a particular jurisdiction specify the subject matter for which a patent may be obtained and the conditions for patentability. The United States Patent and Trademark Office (USPTO), the Canadian Intellectual Property Office (CIPO) and the European Patent Office (EPO) administer regulations governing the granting of patents in the U.S., Canada and Europe, respectively.

A patent, otherwise referred to as letters patent, is an instrument granted by a government body of a specific jurisdiction to the “inventor/s [or its/their assignee] of a claimed invention. A patent grants to the applicant, its heirs or its assignee the exclusive right to make, use, or sell the claimed invention for a defined period of time. In the United States of America patents are governed by Title 35 of the United States Code (35 U.S.C.) or by the Patent Act in Canada or by the European Patent Convention (EPC) in the European Union. The World Trade Organization’s Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) ratifies agreements in trade and harmonization of intellectual property matters across international borders. Under TRIPS the term of a patent is generally 20 years from the priority filing date.

In the United States, a patent application must be filed in the name of the inventors and, if granted, it is issued in the name of the inventors notwithstanding that the inventors may have assigned their rights to a third party (i.e. the employer). Therefore it is imperative that the patent application or granted patent name rightful inventors. In cases of multiple inventors, there is no
privilege granted to any one inventor over another, nor is there any hierarchal priority, notwithstanding the sequence that the names of inventors appear. Thus the United States patent system grants equal and undivided rights to all inventors cited without regard to the relative importance of any one inventor to the total invention. A patent that fails to name the correct inventors may be ruled invalid by a court; whether a rightful inventor is omitted or whether one is wrongly named. Fortunately the patent system provides for correction of inventorship errors which may have arisen either by improper inclusion of an inventor (misjoinder) or failure to name a rightful inventor (non-joinder), provided such error arose without deliberate intent. Sections 116 and 256 of 35 U.S.C. allow voluntary correction of inventorship error in a pending application and correction of an inventorship error after a patent grant, respectively.

What is the basis of inventorship:

Inventorship and authorship at times remain nebulous albeit prized “virtual currency”. About 80% of all United States utility patents are issued to joint inventors. Indeed when disputes do arise they are often in the context of a “nonjoined” or “misjoined” inventor (E.W. Remus and H. Blair Hughes; AIPAL Annual Meeting, October 1995. Thus, it is understandable why one court has described the concept of a joint invention as "one of the muddiest concepts in the muddy metaphysics of patent law"; District Judge Newcomer, Mueller Brass Co. v. Reading Indus., 352 F. Supp. 1357, 1372, 176 USPQ 361 (E.D. Pa. 1972). Who then is a rightful inventor? To answer this question it is equally important to view inventorship through a process of elimination. Accordingly, not all authors cited on a publication are necessarily inventors. Nor is it sufficient that an inventor is one who merely recognizes that a certain problem exists and/or that a particular outcome would be desirable without having completely formulated a working means of solving a problem. Instead the inventor(s) must have thought through a complete and operative means of achieving the result and working solution including every feature of the subject matter sought to be patented and specifically recited in the patent claims, such that no more than routine skill is necessary to enable the invention: Coleman v. Dines, 754 F.2d 353, 359 (Fed. Cir. 1985); Mergenthaler v. Scudder, 11 App. D.C. 264, 276, 1897 C.D. 724, 731 (1897). A person or group who provides equipment, specialized materials, reagents, space, financial resources, no matter how important, is not an inventor. A person who works under the guidance or direction of another is not an inventor, irrespective of time invested, dedication and diligence or the furtherance of knowledge from the like. A person who redirects experimentation in a way that renders the invention operational or superior is an inventor. Said differently, a lawful inventor is one who meets the statutory requirements of inventorship and is associated with one or more of the patent claims that formally define the invention and not what the patent discloses. Each granted claim, unless otherwise later invalidated, constitutes an essential element that comprises the invention and the inventors therein. The whole of the patent claims defines the scope of the invention.

In summary, there is a legal basis for correctly determining inventorship. When two or more persons contribute to a particular invention whether physically together or not, the determination of inventorship can be even more difficult to ascertain. The “Mergenthaler standard” is a sound principle for assessment; but understandably may not adequately be suited to present day complex research undertakings. A patent attorney is usually in the best position to ascertain rightful inventorship.
Credit and recognition:

Individual contribution to an invention can be recognized in several ways:

1. **Designation as one of the legal inventors in whose name the patent will issue**: As outlined above, the determination of inventorship is carefully defined by U.S. patent law. It is not within any individual’s or institution’s discretion to arbitrarily designate who shall be named an inventor. In fact it is all too common that during patent prosecution, one or more claims of the invention may become abandoned or may not be granted. In that instance the individual associated with the abandoned or rejected claim/s forfeits “inventorship” even though he/she was named as inventor in the original patent application.

2. **Participation through sharing in the proceeds (if any) from subsequent commercialization of the invention**: The stringent regulations of patent law do not apply to the sharing of financial proceeds that may be realized from an invention. This provides a means that the contributions of co-inventors and others can be recognized. Income accrued from the commercial exploitation of an invention belongs to the owner of the invention and can be used or assigned as the owner determines. At the time the patent application is filed, inventors are often required by (employment) contract or institutional policy, to assign their entire interest in the invention to their employing institution, who then becomes the sole owner. In the case of academic institutions, policy invariably provides that a specified share of any accrued income be returned to the inventors in consideration of such assignment (i.e. the entitlement to share in invention income is often a vested right of the legal inventors). It is often the case that, with acknowledgement and agreement of the co-inventors, such division may also include an amount attributed to those co-workers who would otherwise not meet the criteria of an “inventor”.

3. **Through publications and open forum presentations**: Knowledge gleaned in the course of a research project is in and of itself a form of intellectual property. The ensuing scholarly publications are copyrightable works and the principal vehicle for channeling research outcomes in a knowledge based economy, whilst recognizing priority of achievement and acknowledgement of those directly associated with its realization. Scholarly publications present opportunity to create collaborations or partnerships with the private sector thereby fostering furtherance of the original research toward application. While 'authorship' is not synonymous with 'inventorship', there are nonetheless scholarly norms and guidelines that are respected (e.g. ICMJE: uniform requirements for manuscripts submitted to biomedical journals).

Internal processes and due diligence:

McGill University has a tradition and rich history of cutting edge research. Curiosity and creativity are the seed to discovery. ‘Inventions’ on the other hand, may be viewed as the transition from discovery to utility, can either be the deliberate application of discovery or often incidental to primary research goals, which in themselves have limited effect beyond meeting a fairly narrow research objective. Innovation on the other hand spans the entire spectrum from discovery through to emergence of tangible products, processes or services, with or without ‘invention’.
McGill University’s Policy on intellectual property is an integral component of the University’s “Policies Procedures and Guidelines”: [http://www.mcgill.ca/secretariat/policies/](http://www.mcgill.ca/secretariat/policies/). It sets forth the principles and regulations governing the ownership, disposition and remuneration, if any, in those situations where intellectual property advances to a stage where it generates a revenue stream.

As a first step, it is imperative that a formal disclosure of an invention be forwarded to the Office of Sponsored Research. The necessary documentation may be downloaded from the following site: [http://www.mcgill.ca/research/researchers/formsandresources/](http://www.mcgill.ca/research/researchers/formsandresources/).

What follows is a due diligence process, which invariably involves consultation with one or more inventors and with external parties, where deemed appropriate. Typical consideration given to due diligence includes but is not limited to:

(i) An initial review of the disclosure together with substantiating documents; (ii) a search of the of the prior art as it exists in the literature and patent databases; (iii) evaluation of the market that the invention addresses; (iv) assessment of the technology in the broader context of window of opportunity and product lifecycle; (v) the competitive advantage (are the products, processes or services engendered in the invention “nice to have” or “need to have”); (vi) business and technical risk vs. benefit.

The compilation of the above mentioned information, within ninety (90) days of the original disclosure, is the basis for determining the appropriate channels of commercialization including the filing of patent letters where and when deemed strategic. In most instances, and subject to internal approvals, the Office of Sponsored Research engages the services of a patent agent versed in the subject matter of patent application. It is at this stage that further queries regarding inventorship are made.

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