NEED FOR CORRECT INVENTORSHIP
From the standpoint of U.S. law, a patent is a personal entitlement of the legal inventor(s) which comes directly from the U.S. Constitution. A patent may issue lawfully only in the name of those who meet the criteria of inventorship discussed below. Willful failure to identify correctly all legal inventors on a patent application is regarded as fraud against the Patent Office. A patent application incorrectly specifying inventorship is defective; such error must be corrected since it gives a basis for invalidating the patent.

WHAT IS MEANT BY INVENTORSHIP?
Inventorship has a strict legal meaning under the laws and regulations of the U.S. patent system. The law specifies that only those who have made independent, conceptual contributions to an invention are legal inventors in the United States.

Inventorship
- An inventor is one who, alone or with others, first invents a new and useful process, machine, composition of matter (or other patentable subject matter).
- If an invention involves more than one inventor, it is a joint invention; multiple inventors are called joint or co-inventors.
- Inventorship and authorship are not the same. All co-inventors are co-authors of a publication describing an invention. Co-authors may not necessarily be co-inventors.

Inventorship criteria
- The most important consideration in determining inventorship is initial conception of the invention. The courts have rules that, unless a person contributes to the conception of the invention, that person is not an inventor.
- Conception of the invention under patent law has been defined as “the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice.”
- An invention is complete and operative “if the inventor is able to make a disclosure which would enable a person of ordinary skill in the art to construct or use the invention without extensive research or experimentation.”
**Patent Claims and Co-inventorship**

- A patent application consists of three parts:
  - Its specification including one or more claims,
  - A drawing, where necessary, and
  - An oath by the applicant(s), as specified by law.

- The specification is a narrative presentation of the invention, including what may have been publicly disclosed in the past (termed prior art). The specification enables a person of ordinary skill in the art of the invention to practice the invention. The specification must include the best mode of practicing the invention known by the inventor.

- Each claim represents one or more of the essential conceptual elements which make up the invention. Taken together, the claims of a patent define the scope of the invention by describing the specific features that distinguish the invention from the prior art. The claims also provide the basis for legal enforcement of the patent. Anyone who practices the claims of a patent without approval of the patent owner becomes subject to the charge of patent infringement.

- Legal determination of inventorship is made by the patent attorney in relation to patent claims. The test of inventorship is whether a person has made an original, conceptual contribution to at least one of the claims of the patent. Only those who meet this test qualify as inventors.

- To be a sole inventor, a person must be responsible for the conception of the invention as described in all the patent claims.

**JOINT INVENTORS: SPECIAL CONSIDERATIONS**

Joint inventorship requires communication (in some form) between the inventors. It is, however, not necessary:

- For the inventors to physically work together
- For the ideas to have occurred to both inventors at the same time
- For each inventor to have conceived the same part of the ultimate invention or made the same type of contribution
- For the inventive contributions to be of equal importance.
Do joint or co-inventors have equal rights to their invention?

- All inventors have made an original, conceptual contribution to at least one of the patent claims or its elements.

- Such independent, conceptual contributions are identified in the patent without reference to the contributor and without regard to their relative importance to the total invention. The patent system does not attempt to evaluate or rank the relative contributions of individual co-inventors.

- Each co-inventor is considered to have the same legal interest in a joint invention as any other co-inventor.

- For legal and practical reasons, the status of co-inventor may not be conferred merely as a reward for hard work, friendship or even outstanding science. This means that colleagues, students, research assistants, technicians, machinists, or those who supervise them, even though they may gather essential data or construct a practical embodiment of the invention, are not inventors unless they have made an inventive contribution.

Who will ultimately determine inventorship?

1. Institutional investigators involved in the invention disclosure process should understand that preliminary determinations of inventorship made prior to the preparation of a patent application are tentative and subject to change based on the advice of the patent attorney or agent who prepares the application.

2. In determining inventorship under the law, there are gray areas where such assessment is difficult. However, it is important that this issue be settled, insofar as possible, before the patent application is filed.

3. As we have seen, determining inventorship requires expert knowledge of the legal criteria on which inventorship is based. Definitive inventorship determination is done by the patent attorney or agent at the time the patent application is prepared for submission to the U.S. Patent and Trademark Office.

Credit and Recognition

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

- By designation as one of the legal inventors in whose names the patent will issue,

- By participation through sharing in any income from subsequent commercialization of the invention, and

- By recognition through publications and presentations.
As already explained, the determination of inventorship is carefully defined by the U.S. patent law. Thus, it is not within a university’s discretion or authority to determine who shall be named an inventor. On the other hand, the constraints of patent law do not apply to the sharing of financial return from an invention. This provides an alternative mode by which to recognize the contributions of others.

At the time the patent application is filed, University inventors are required by the terms of their employment to assign their entire interest in the invention to the University, which thereby becomes the sole owner. In return for such assignment, University policy provides that for inventions arising after October 1 1997 that a 35% share of any resulting income shall be returned as personal income to the inventors, i.e., the entitlement to share in university invention income is a vested right of the legal inventors. With the concurrence of the co-inventors, such division may also include shares to meritorious co-workers who did not qualify as legal co-inventors. A 15% share is returned to the department(s) or ORU(s) of the inventor(s) and the remaining 50% goes to the University.

See:


Passages enclosed in quotations are excerpts from court decisions involving inventorship questions.