Planting Seeds of Innovation:
Resources for Innovators

University of Minnesota School of Nursing Health Innovation and Leadership Doctor of Nursing Practice Program

The Health Innovation and Leadership specialty of the DNP program prepares nurses to be full interprofessional partners, to create innovative healing environments and to transform health care systems locally, nationally and internationally. Roles range from leading in formal executive positions to leadership at point-of-care delivery; from acute care to community care; from leading individual quality and safety programs to national and international health care initiatives.

University of Minnesota School of Nursing Katharine J. Densford International Center for Nursing Leadership
https://www.nursing.umn.edu/centers/katharine-j-densford-international-center-nursing-leadership

The Densford Center is a resource, catalyst, and incubator for creativity, innovation and quality improvement in health care. Programs and services of the center are organized to assist health care leaders in achieving the triple aim of improving the patient experience, improving the health of populations and reducing the per capita cost of health care. In addition, the Densford Center supports nurse leaders in effectively implementing the Affordable Care Act while driving toward innovation in nursing education, practice and research.

University of Minnesota School of Nursing National Nursing Informatics Deep Dive Program
https://www.nursing.umn.edu/outreach/professional-development/national-nursing-informatics-deep-dive-program

Information technology is an enabling tool that links data, information, knowledge, and wisdom and facilitates problem solving and decision making. However, incorporating information technology into new products, services and processes remains a challenge for many healthcare professionals. The Nursing Informatics Deep Dive Program offers on-line courses and resources regarding the field of nursing informatics and can provide nurse innovators with technology solutions to problems.
Minnesota Innovation Corps (Min-Corps)
https://mincorps.umn.edu/program

With funding from the National Science Foundation, MIN-Corps is a joint initiative of three areas of the University of Minnesota: The College of Science and Engineering, the Office for Technology Commercialization, and the Holmes Center for Entrepreneurship at the Carlson School of Management. The mission of Min-Corps is to increase research-based technology commercialization capabilities and activities across the University of Minnesota. Min-Corps offers the following workshops and courses:

**Lean LaunchPad 101**
This seminar introduces the Lean Launchpad methodology that was developed at Stanford to translate university innovations into successful licensed products and ventures, and has been adopted as “I-Corps” by NSF, NIH and other federal grant-making agencies. The workshop provides an overview of MIN-Corps commercialization education and coaching programs, as well as University of Minnesota commercialization resources.

**Innovation Commercialization Boot camps**
A one-day overview of commercialization practices and principles.

**Value Proposition Design Workshops**
Four hands-on sessions cover the following: product-market fit, customer discovery, pathway to commercialization, market assessment. NSF-funded mini-grants are available for customer discovery and prototyping. Successful completion can lead to nomination to the I-Corps National Teams program, which includes a $50,000 grant for team participation and additional customer discovery. These workshops are designed for researchers (students, staff and faculty) who have specific innovations that they would like to explore commercializing.

**Women Innovators Conference**
The Women Innovators Conference is a professional development summit designed to help female innovators connect the dots between their ideas and achieving a positive, significant impact. This event will inspire, inform and connect women graduate students, faculty and business professionals in Science, Technology, Engineering, Mathematics, and Medicine (STEMM) to strengthen and extend the diverse talent pool of women innovators in the Twin Cities.

**STARTUP: Customer Development & Testing**
STARTUP: Customer Development & Testing (MGMT 5102) is an experiential 2-credit course for UMN undergraduate and graduate students interested in pursuing their own entrepreneurial ventures. Students apply Lean Launchpad methods to test their value proposition and receive recurring feedback from instructors and mentors. Participating students are eligible to receive seed capital grants up to $3,000 to fund prototype development and customer discovery.

**Strategy Clinics**
Strategy Clinics offer current and future science and technology entrepreneurs the opportunity to share a meal, hear from experts, share their challenges, and seek advice.
University-Industry Partnerships
This forum provides participants insights into industry-sponsored research at an academic institution. Panelists represent the UMN Minnesota Innovation Partnership program (MN-IP), MnDRIVE, the UMN Medical Devices Center, the UMN Office for Economic Development, and the federal SBIR STTR (Small Business Technology Transfer) grant program.

Smart Customer Engagement
It is not easy to know when to "pull the trigger" and launch a startup. Focusing on ventures that have licensed UMN technologies, the forum will address what needs to be in place before launch, and considerations that may determine the timing of a spinout.

Emerging Opportunities Forums

Securing Intellectual Property
The forum provides an overview of intellectual property and discussion of procedures for cost-effectively securing intellectual property assets within science and technology-related businesses.

Early Stage Startup Funding
This forum focuses on key tactics and resources concerning funding: SBIR/STTR and other grants, bootstrapping, angel investors, loans, crowdfunding, and (occasionally) venture capital.

STARTUP and MIN-Corps Pitch Showcase
This event features participants from the fall semester STARTUP course and Value Proposition Design workshops. Teams will present their ventures and discuss their progress.

The Min-Corps Toolbox
http://mincorpsresources.dl.umn.edu/

You need many tools to take an innovation from concept to market reality. In addition to in-person programs, the following website provides a starter collection of resources.

Value Proposition
Honing in on market fit

- **Value Proposition Design** – What are customers trying to achieve? How can you help them?
- **Customer Discovery & Market Assessment** – How do you "get out of the building" to learn from potential customers? How do you determine if you have a viable market?
- **Pathway to Commercialization** – If you've achieved product-market fit, what are the steps needed to get out into the marketplace?
Getting Started
Once you have a high-level commercialization game plan, you need to specify and attract the needed resources:

- **Planning** – What does the comprehensive business model look like? How will you document your business plan?
- **Pitching** – How can you get decision makers intrigued in your idea? How will you get them to take the conversation to the next step?
- **Funding** – What’s your funding strategy? What are some funding sources?

Intellectual Property
*Intellectual property protection and licensing entails multiple considerations and processes:*

- **Patentability & Public Disclosure** – What IP protections are relevant to different types of innovations? What does this mean for academic discourse?
- **Office for Technology Commercialization** – What can you expect from a tech transfer office? What does the process look like?

**University of Minnesota Office of Technology Commercialization**
[https://research.umn.edu/units/techcomm/university-inventors/overview](https://research.umn.edu/units/techcomm/university-inventors/overview)

The Office for Technology Commercialization (OTC), assists faculty move their research beyond the lab and into the marketplace. Their mission includes:

- Connecting faculty with companies
- Licensing technology for the development of new products and services that benefit the public good
- Fostering economic growth
- Generating revenue that supports the University’s research and education goals

**Key information for faculty includes:**

Policies and Guidelines for Commercialization and Conflict of Interest
[https://research.umn.edu/units/techcomm/about-us/policies-guidelines](https://research.umn.edu/units/techcomm/about-us/policies-guidelines)

Process for reporting an invention:
[https://research.umn.edu/units/techcomm/university-inventors/report-invention](https://research.umn.edu/units/techcomm/university-inventors/report-invention)

Steps in the commercialization process (protecting intellectual property, licensing, patents, funding, marketing)
[https://research.umn.edu/units/techcomm/university-inventors/commercialization-process](https://research.umn.edu/units/techcomm/university-inventors/commercialization-process)
Agreement Templates (Non-disclosure, material transfer agreements)
https://research.umn.edu/units/techcomm/university-inventors/request-agreements

University of Minnesota Earl E. Bakken Medical Device Center
http://www.mdc.umn.edu/

The Earl E. Bakken Medical Devices Center (Bakken MDC) at the University of Minnesota is an interdisciplinary program that sits within the Institute for Engineering in Medicine and combines basic research, applied and translational research, education and training, and outreach and public engagement all related to medical devices. The Bakken MDC brings together the University of Minnesota's expertise from the College of Science and Engineering and the Academic Health Center (School of Dentistry, College of Veterinary Medicine, School of Nursing, College of Pharmacy and the Medical School)

University of Minnesota College of Design
https://design.umn.edu/about/

Located in the vibrant Twin Cities design community, and as part of one of the largest research universities in the U.S., the College of Design encompasses the full range of design disciplines. With eight undergraduate majors, 23 graduate degree options, and 10 research and outreach centers, we value a hands-on, interdisciplinary learning experience. Through a unique commitment to creativity and advancing technologies, College of Designs mission is to lead, innovate, and educate in the full range of design fields.

Innovation Websites

Raise the Voice Edge Runners: The American Academy of Nursing
http://www.aannet.org/initiatives/edge-runners

The Edge Runners program supports the innovative work of nurses and demonstrate the holistic and integrated philosophy underlying nursing care. Edge Runners demonstrate how an innovative solution (intervention or model of care) remedied a problem in the delivery of health care or an unmet health need of a population.

The Founders Institute
https://fi.co/

The Founder Institute provides a startup launch program for entrepreneurs. The step-by-step curriculum offers the structure, mentor support, and global network needed to start a new company.
Kauffman Entrepreneurs
https://www.entrepreneurship.org/learning-paths

Kauffman Entrepreneurs is an online educational resource dedicated to entrepreneurship. Through lectures and a rich curriculum, the site provides resources that focus on the skills and tools to build an idea into a commercial product, service or business.

The Stanford eCorner
http://ecorner.stanford.edu/

As the entrepreneurship center in Stanford's School of Engineering, the Stanford Technology Ventures Program (STVP) delivers courses and extracurricular programs to Stanford students, creates scholarly research on high-impact technology ventures, and produces a large and growing collection of online content and experiences for people around the world.

Springwise
https://www.springwise.com/about/

The Springwise mission is to drive positive change through disruptive innovation. The network of 20,000 springspotters provides real time information on innovations from around the world.

Entrepreneurs Magazine: Young Entrepreneurs Articles
https://www.entrepreneur.com/topic/young-entrepreneurs

The website provides medium-length articles about young entrepreneurs.

Strategyzer
https://strategyzer.com/

The website provides information to entrepreneurs from the inventors of the business model and value proposition canvas'.

MakerNurse
http://makernurse.com/

MakerNurse is a community of inventive nurses who share their creative solutions to improve patient care. The site provides the tools, platforms and trainings to help these nurses make the next generation of health technology.

Articles
