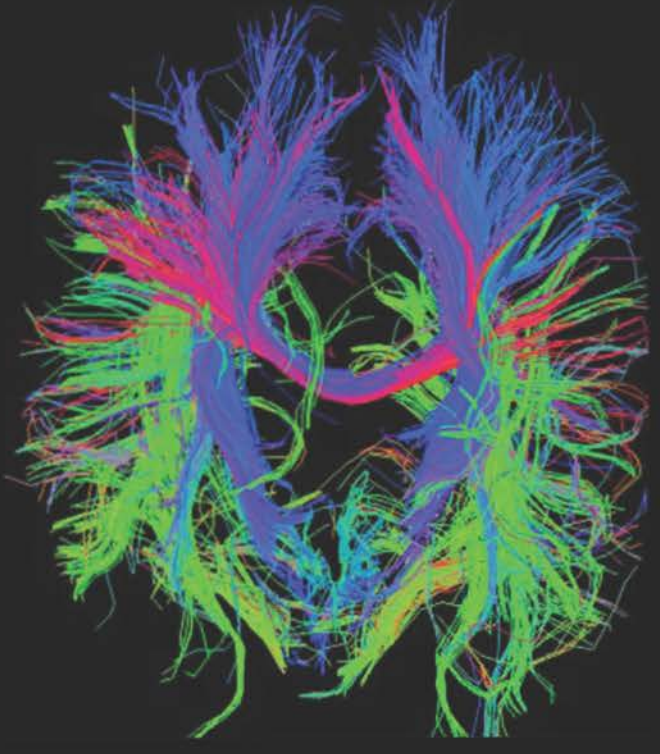
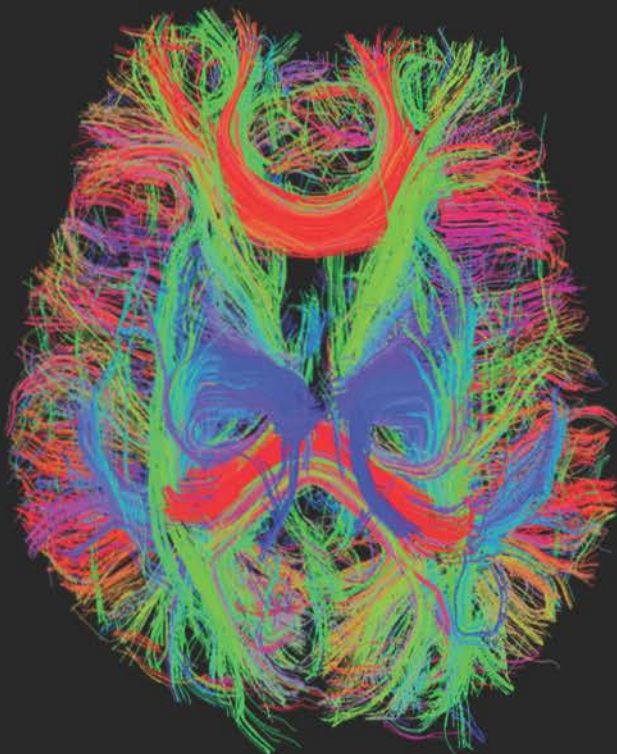
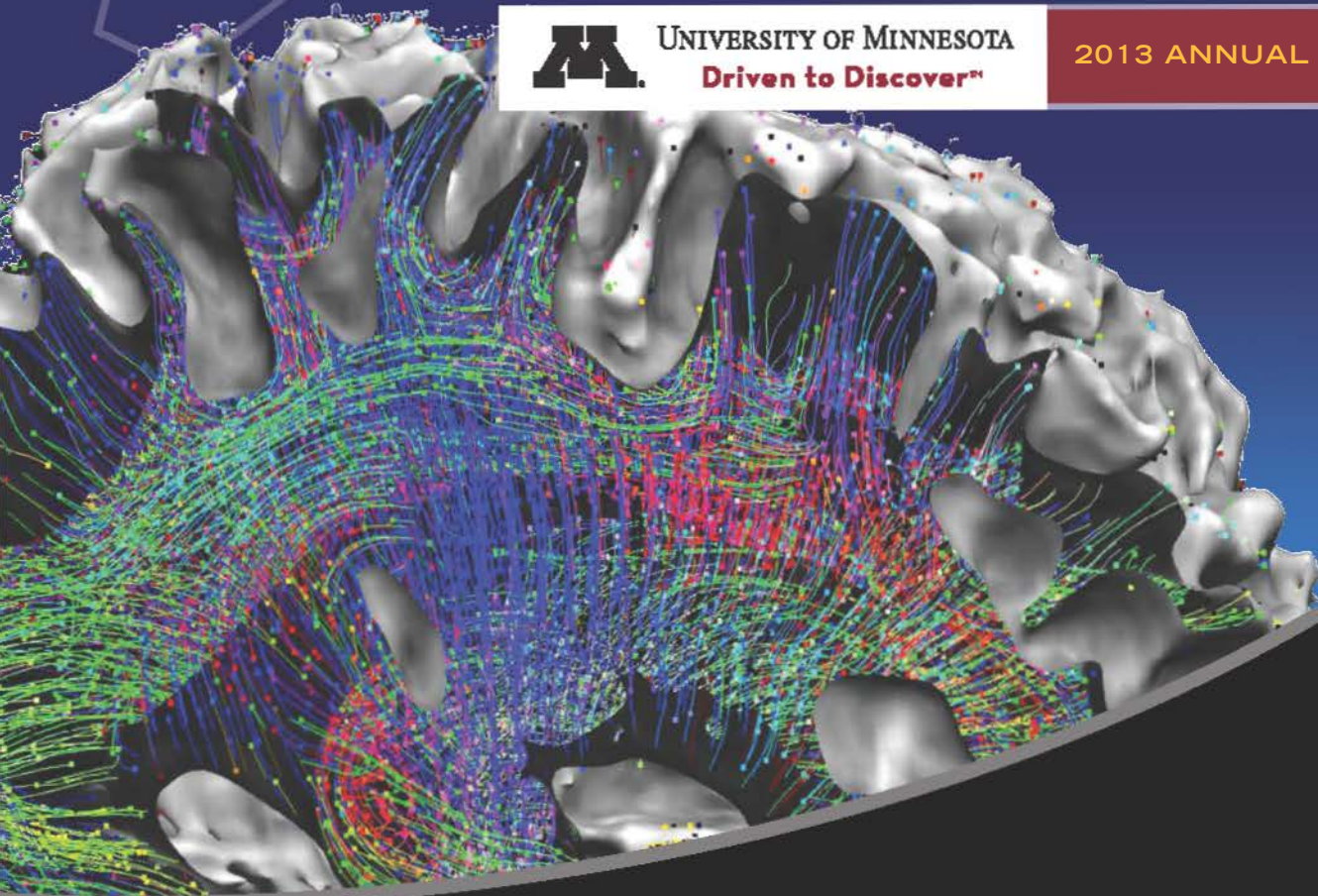


Office for Technology Commercialization



UNIVERSITY OF MINNESOTA
Driven to Discover™

2013 ANNUAL REPORT

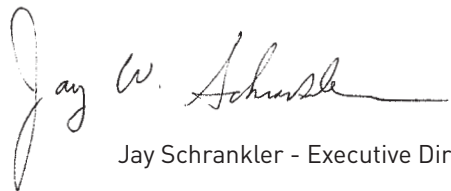


Greetings,

Over the past five years, the Office for Technology Commercialization (OTC) has produced year-over-year growth in nearly every important measure of technology transfer success, and 2013 was no exception. We increased our base revenue, managed more technologies, served more faculty, conducted more inventor training, completed more licensing agreements, and created more start-up companies than at any other time in the history of this office.

Our pioneering sponsored research program (Minnesota Innovation Partnerships – “MN-IP”) is continuing to garner national attention, and is succeeding in removing the barriers that historically have kept industry and academia from partnering. Our goal is to maintain this innovative spirit, stay at the forefront of technology management, and to continue developing new ideas and programs in 2014. To that end, we are proud to announce the expansion of MN-IP in 2014 to include our new “Try Buy” initiative. Companies will be able to take available technologies for a “test-run” or use them fee-free (if qualified) to test the viability of the innovation for their company (<http://bit.ly/MN-IP>).

We are fortunate to be part of one of the top ten public research universities in the country, which provides the fuel that powers the robust innovation we see every year at OTC. This is an exciting time to be involved in technology transfer at the University of Minnesota, and I encourage you to give us a closer look and join in partnership.

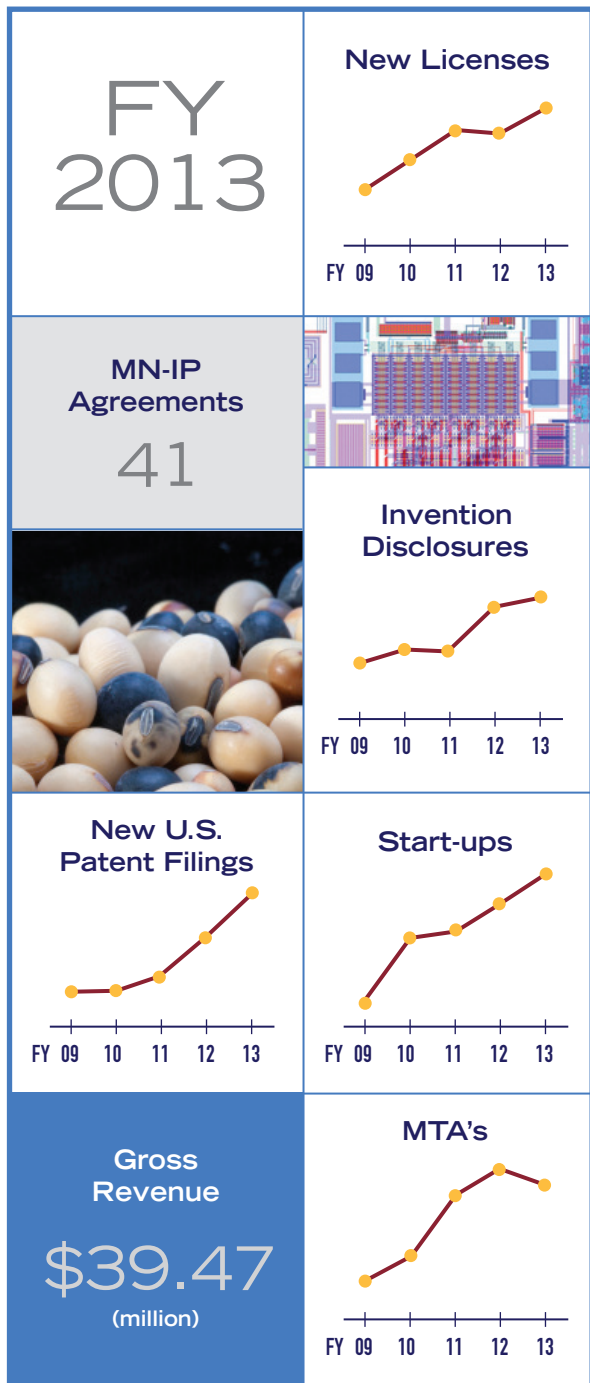


Jay Schrankler - Executive Director



From left to right - Doug Johnson (Director - Venture Center), Rebecca Gerber (Technology Marketing Manager), Russ Straate (Associated Director - Venture Center), Johanna Casas-Forero (Associate Director - Operations), Rick Huebsch (Associate Director - Software & Physical Sciences), Jay Schrankler (Executive Director), Reggie Bowerman (Associate Director - Lifesciences), Anne Hall (Technology Strategy Manager), Andrew Morrow (Technology Marketing Manager)

2013 IN REVIEW



The Actives Factory

The Actives Factory manufactures a natural anti-inflammatory compound that was developed at the University of Minnesota for the cosmetics, dietary supplements and pharmaceuticals industries. The technology behind The Actives Factory consists of core extraction and processing technology developed by the University of Minnesota providing a unique, environmentally friendly processing system.

Pavel Krasutsky, Ph.D.

Natural Resources Research Institute



- Director of the Chemical Extractives Program
- Engineer in chemistry, and has a Ph.D. and doctor of science in organic chemistry

Natural anti-inflammatory extracts

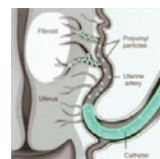
BIRCH BARK

EmboMedics

EmboMedics is developing a natural polymer bead that is used to cut off the blood supply to tumor / cancer cells in the body. EmboMedics biodegradable beads treat the disease state and resorbs within a certain period of time, leading to complete recanalization of the arteries. The company is developing the technology at the University of Minnesota and uses several partners to manufacture the technology.

Jafar Golzarian, M.D.

Radiology



- Professor in the department of Radiology
- Recognized as a world leader in vascular embolotherapy (embolization), and co-founder of GEST (Global Embolization Symposium and Technologies).
- Graduated from the University of Brussels School of Medicine, Brussels, Belgium

Complete recanalization of the arteries

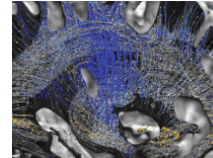
POLYMER BEAD

Evidentia Health

Evidentia Health is a Mayo Clinic and University of Minnesota-based health care IT start-up providing evidence-based clinical decision support tools at the point of care.

University of Minnesota/Mayo Clinic collaboration

Radiology



Developing proprietary software which helps caregivers quickly answer key questions:

- what does the evidence mean?
- what should I do next?
- who can help me with this patient?
- what information can I give to the patient?

Clinical decision support tools

HEALTHCARE IT SOLUTIONS

Universal Magnetic Systems

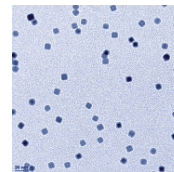
Universal Magnetic Systems is developing technologies, based on processes developed by professor Jian-Ping Wang from the Department of Electrical and Computer Engineering at the University of Minnesota, to supply superior high moment magnetic nanoparticles to an existing and rapidly growing market for disease detection and target separation.

Jian-Ping Wang, Ph.D.

Electrical and Computer Engineering



Universal Magnetic Systems, LLC



- Distinguished McKnight University Professor of Electrical and Computer Engineering
- Nanomagnetism and Quantum Spintronics
- Received the information storage industry consortium (INSIC) technical award in 2006 for his pioneering work in exchange coupled composite magnetic media

Disease detection and target separation

HIGH-MOMENT MAGNETIC PARTICLES

SimPORTAL \ Cutting-edge medical simulation and education

SimPORTAL (**Simulation PeriOperative Resource for Training and Learning**) aims to be a world leader in the research and development of novel curricula and simulation models to drive the future of health-care professional education. SimPORTAL works with industry leaders and experts to build cutting edge educational tools available to the medical community.

OTC partnership

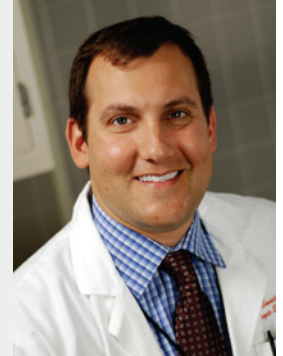
OTC has helped SimPORTAL build industry partnerships. These collaborations bring interdisciplinary faculty and staff in close contact with clinical end-users, both inside and outside of the University.

Web address

<http://www.simportal.umn.edu/>

**Robert M. Sweet, M.D.,
F.A.C.S.**

Medical School



Director - SimPORTAL

- Associate professor of urological surgery
- Actively engaged in simulation projects including the development of a human tissue property database, advanced real time and predictive modeling of human tissue and tool interactions, and delivery systems.

The College of Pharmacy \ Next generation drug development

The College of Pharmacy inspires and educates current and future pharmacists and scientists, engages in cutting-edge research and leads practice development to improve the health of the people of Minnesota and the world. The College of Pharmacy consistently ranks among the top three pharmacy schools in the nation.

OTC partnership

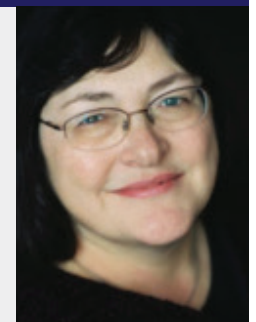
Researchers at the University of Minnesota are continually developing novel therapeutics to treat a diverse range of diseases. OTC partners closely with the College of Pharmacy in the patent protection and commercialization of their technologies.

Web address

<http://www.pharmacy.umn.edu/index.htm>

Marilyn Speedie, Ph.D.

Pharmacy



Dean - College of Pharmacy

- Marilyn K. Speedie, Ph.D. has been dean of the University of Minnesota College of Pharmacy since 1996. Her leadership interests include developing the college's education, research and clinical practice missions, drug development, pharmacogenomics and advancing pharmacy practice to better serve patients.

EXAMPLES OF OTC INTERNAL PARTNERSHIPS

Rothenberger Institute \ Leadership in health and wellness education

For over a decade, the School of Public Health's Rothenberger Institute has provided an online wellness curriculum to the University of Minnesota undergraduate community. During that time the curriculum and enrollment have grown well beyond the Twin Cities campus. Today, the Institute provides innovative and engaging learning opportunities that help students from over a dozen campuses develop and maintain healthy lifestyles.

OTC partnership

As the Institute added partner campuses, they soon faced questions of support and engagement well beyond the University of Minnesota and MNSCU systems. OTC was able to help the Institute evaluate, select, and ultimately engage a licensee to assist them in reaching their vision for growth.

Web address

<http://www.ri.umn.edu/>

Jerri Kjolhaug - M.P.H., R.D., L.D.		Public Health
		
Executive Director – Rothenberger Institute, School of Public Health		
<ul style="list-style-type: none"> • Instructor Kjolhaug has degrees in kinesiology and public health nutrition. She is a faculty member in the Division of Epidemiology and Community Health, School of Public Health. She developed and teaches the online course "Sleep, Eat, and Exercise". 		

Additional OTC commercialization partners

- Biomedical Genomics Center
- Biotechnology Institute
- Center for Advanced Research on Language Acquisition (CARLA)
- Center for Cell and Molecular Biology
- Center for Drug Design
- Center for Early Education and Development (CEED)
- Center for Excellence in Critical Care
- Center for Genome Engineering
- Center for Immunology
- Center for Magnetic Resonance Research (CMRR)
- Center for Neuroengineering
- Center for Orphan Drug Research
- Center for Research in Education and Simulation Technologies (CREST)
- Center for Spirituality and Healing
- Center for Sustainable Polymers
- Center for Translational Medicine
- Center for Transportation Studies
- Clinical and Translational Science Institute (CTSI)
- Digital Technology Center (DTC)
- Duluth Medical Research Institute
- Forest Products Management Development Institute
- Hormel Institute
- Human Factors Interdisciplinary Research in Simulation and Transportation (HumanFIRST)
- Institute for Therapeutics Discovery & Development (ITDD)
- Institute on Community Integration
- Intelligent Transportation Systems Institute
- Lillehei Heart Institute
- Masonic Cancer Center
- Materials Research Science and Engineering Center
- Medical Devices Center
- Medical Industry Leadership Institute (MILI)
- Minnesota Center for Reading Research (MCRR)
- Minnesota NMR Center
- Minnesota Population Center
- Minnesota Traffic Observatory (MTO)
- National Center for Food Protection and Defense (NCFPD)
- Natural Resources Research Institute
- New Product Design and Business Development Program
- Nutrition Coordinating Center
- Rothenberger Institute (RI)
- Schulze Diabetes Institute
- Security in Transportation Technology Research and Applications (SECTTRA)
- St. Anthony Falls Laboratory
- Stem Cell Institute
- Technology Leadership Institute (TLI)
- The Center for Compact and Efficient Fluid Power (CCEFP)
- The Center for Farm Financial Management (CFFM)
- The Industrial Partnership for Research in Interfacial and Materials Engineering (iPRIME)
- The Institute for Mathematics and its Applications (IMA)
- The Minnesota Laboratory for Low-Vision Research
- The Rasmussen Center for Cardiovascular Disease Prevention
- Tissue Mechanics Laboratory
- Veterinary Diagnostic Laboratory
- Veterinary Medical Center
- Visualization and Digital Imaging Lab (Viz Lab)



**Office for
Technology Commercialization**

280 McNamara Alumni Center
200 Oak Street SE

Minneapolis, MN 55455

612-624-0550

www.research.umn.edu/techcomm



UNIVERSITY OF MINNESOTA

Driven to DiscoverSM

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