

University of Illinois at Chicago Office of Technology Management (OTM)

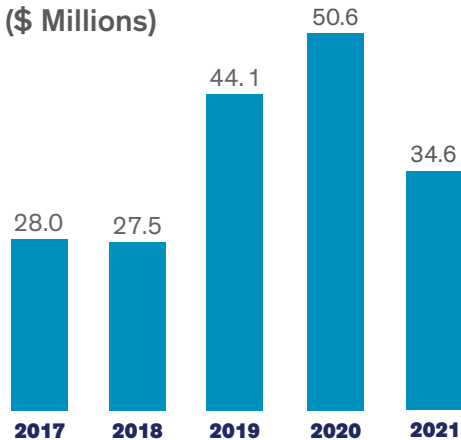
Igniting Innovation and Commercialization

Impact Report FY21

July 2020 - June 2021

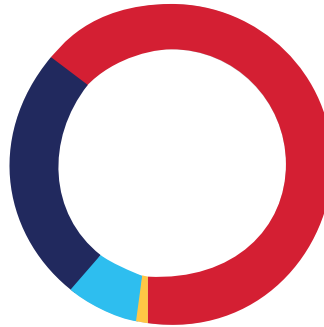
License Income

(\$ Millions)



Total Revenue: \$34,605,237
Patent Reimbursement: \$523,486

Income Distribution



University Share:	\$22,822,112
Creator Share:	\$7,644,649
Unit/College Share:	\$3,506,034
Collaborators' Share:	\$48,978

Note: Distributions may not match license income received due to the time lag between the date income is received and the date distributed.

Innovation Snapshot

College/Unit	Technologies Disclosed	U.S. Patents Filed	U.S. Patents Issued	Licenses & Options
Total	141	106	25	45
Applied Health Sciences	2			
Architecture and the Arts	3	1		
Business		1		
Dentistry	4	1	1	
Engineering	61	37	7	4
Innovation Center	4	1		
Law	1			
Liberal Arts & Science	12	2	3	2
Medicine (UIC, Rockford, Peoria)	63	56	8	17
Nursing	1	2		
Pharmacy	24	18	8	6
Public Health	1			2
Social Work	0			16

Note: Campus research is interdisciplinary; technologies can be associated with multiple colleges.

\$34,605,237

License Income Earned

Top 3 Innovations by License Income

Shingrix

A new, FDA approved shingles vaccine with 90% effectiveness

Tice BCG

The top non-invasive bladder cancer treatment and prophylaxis

Dronabinol

Newly formulated, oral pharmaceutical treatment for obstructive sleep apnea.

Licenses

322 Total Active Licenses FY21

Patents

655 Total Issued Patents

= **371** Worldwide

+ **284** U.S.

Startups

35 SBIR/STTR Awards

2 New Start-ups founded in FY21

\$20.3 M SBIR/STTR Funding

\$17.5 M Seed and Venture Capital Funding

Inventor of the Year

Ramaswamy Kalyanasundaram,
DVM, PhD
*Biomedical Sciences University of
Illinois College of Medicine Rockford*

Startup Highlights

SBIR/STTR Award Recipients:

Aqualung Therapeutics Corp
Arsenal Medical
Avanti Biosciences, Inc
Chicago BioSolutions, Inc
Dupage Medical Technology, Inc
Enzyme By Design
MassMatrix, Inc
Nano Biotherapeutics, Inc
Pax Neuroscience, Inc
Senex Biotechnology, Inc
Shuttle Pharmaceuticals
Spot Cells
Tango Biosciences
Yaso Therapeutics

Programs and Initiatives:

CO.STARTERS

Starting in Fall 2021, UIC OTM will begin providing the CO.STARTERS Core Program. CO.STARTERS Core is a three-month, cohort-based program that equips aspiring entrepreneurs with the insights, relationships, and tools needed to turn ideas into action and turn a passion into a sustainable and thriving endeavor.

SBIR/ STTR

In spring 2020, the OTM launched the SBIR/STTR consulting program to support UIC startups through the SBIR/STTR grant process. This program provides up to 10 hours of pre & post award consultation with an experienced consultant. The program continued in FY21 with 2 participants who went on to apply for SBIR funding. This program has been approved for another year and will continue in FY22.

Chancellor's Translational Research Initiative (CTRI)

Vinay Aakalu

Peptide Treatment of Corneal Wounds

Kamran Avanaki

BGscope: A Non-Invasive, Continuous Blood Gas Measurement Device

Luisa DiPietro

Novel NRF2 Activators as Wound Healing Therapeutics

Peter Gyarmati

Point-of-Care Detection of Bloodstream Infection

Xin Huang

Developing RT-LAMP Assays for the Detection of SARS-CoV-2 in Saliva

Sangil Kim

Development and Commercialization of a Low-Cost and High-Performance Blood Separation Device for Diagnostics

Deepak Shukla

Repurposing PBA as a Potent Anti-Herpes Agent

Meenesh Singh

Sensor-Integrated Microfluidic Device for Automated Screening of Active Pharmaceutical Ingredients

Peggi White

JP Wound Drain Holder Device

Xiaohong Joe Zhou

Method for Producing 3D Magnetic Resonance Images with Reduced Field-of-View

UIC Chancellor's Innovation Fund

Proof of Concept (POC) Phase I

Paul Goldspink

Targeting 14-3-3/Troponin I in Cardiomyopathy

Russell Pesavento

Coated Nanoceria as a Caries Prevention Agent

Justin Richner

Dengue Virus mRNA Vaccine

Fein Song and Jeffrey Loeb

GlyB4 Biologic for Neurodegenerative Diseases

Alexander Yarin and

Youngkwan Song

Medical Device-Related Pressure Injury Prevention

Chicago Biomedical Consortium (CBC)

Funded Catalyst Awards

Lee Alkureishi (UIC) and Russell Reid (UChicago)

Bending the Bone – Developing 21st Century Tools for Bony Manipulation in the Operating Room

Xincheng Yao (UIC) and Tiffany Schmidt (NU)

Functional Optophysiological Mapping of Intrinsically Photosensitive Retinal Ganglion Cells

COVID-19 Response Awards

Karla Satchell (NU), Vadim Gaponenko (UIC), and Viresh Rawal (UChicago)

Covalent Inhibitors of the Nsp16 2'-O-Methyltransferase of SARS-CoV-2

Evan Scott (NU), Ying Samuel Hu (UIC), Melody Swartz (UChicago), and Jeffrey Hubbell (UChicago)

Novel Strategies for Enhancing Vaccine Efficacy Against SARS-CoV-2

G. R. Scott Budinger (NU), Jing Liu (UIC), and Gokhan Mutlu (UChicago)

Targeting Aberrant Immune Responses in Patients with Severe COVID-19

COVID-19 Research & Commercialization Awards Received

Technology/Therapeutic Development Award from the U.S. Department of Defense Health Program, Congressionally Directed Medical Research Programs

Yulia Komarova

Novel Pharmacological Interventions for ARDS of COVID-19 Patients: Investigational New Drug-Enabling Studies: \$5.9M

Chicago Coronavirus Assessment Network (Chicago CAN) Initiative from the Walder Foundation

Charlie Catlett and Rachel Poretsky (DPI)

Chicago Prototype Coronavirus Assessment Network Node (PCANN): \$1.25M

Renee Taylor and Nahed Ismail

Chicago Can Beat COVID-19: Investigating the Efficacy of a Novel Self-Testing Approach and Persuasive mHealth Technology in an Underserved, Community-Based Sample: \$1.2M

Office Highlights

Social Impact Initiatives

UIC OTM is focused on supporting social impact research conversion to community impact. To facilitate this OTM has focused on non-exclusively licensing our social impact programs to community organizations, non-profits, strategic partners and startups for minimum financial return.

OTM has recently expanded its initiatives to develop a social entrepreneurial ecosystem within UIC to support high social impact endeavors across the campus. These initiatives will focus on connecting UIC social entrepreneurs and researchers with outside funding, identifying and setting up partnerships with external entities to scale up and operationalize our existing social impact programs, and identifying new programs to enhance the social impact.

COVID-19

UIC OTM remained committed to helping faculty to advance the commercialization of UIC research during the COVID-19 pandemic. To facilitate this, OTM granted funding extensions for the DPI and CTRL awards and delayed the POC LOI. OTM inventor meetings, workshops, and license negotiations were successfully converted to a virtual platform and did not impact our ability to host events including the annual POC pitch day and workshops on entrepreneurship.

Throughout the COVID-19 pandemic

UIC and UI Health faculty rapidly pivoted their research to address the paramount need for adequate epidemiologic tracking tools, diagnostic tests, personal protective equipment (PPE), therapeutics, and ventilatory support devices and accessories. During this time, UIC OTM received 17 new technology disclosures and pivoted 3 existing technologies to track, prevent, diagnose, and/or treat COVID-19 and its comorbidities. Many of these technologies have received industry interest, developed into companies, received internal and external funding to advance the technology, and/or been featured in UIC Today and other publications. Some of these notable faculty initiated technologies include:

Vikas Berry

COVID-19 Detection via Graphene Plasmonics

J. Hussain, Y. Leiderman, P. Pfanner, A. Sahni, and D. Schaumann

NIPPV Seal Clip / Chicago Clips for Noninvasive Helmet Ventilation

Mohammad Islam (UIC) and Erik Procko (UIUC)

ACE2 Decoy Receptor Binds SARS-CoV-2 Spike (S) Protein with Tight Nanomolar Affinity

Sandeep Jain (Advaite)

RapCov™, Diagnostic Test for COVID-19

Yulia Komarova

Novel Drug-Based Therapy to Treat ARDS Associated with COVID-19

Asrar Malik (UIC) and Erik Procko (UIUC)

Therapeutic Efficacy of Engineered ACE2 Peptides in Experimental in Vivo Disease Models of COVID-19

Igor Paprotny

Real-Time Detection of Airborne COVID-19 Using Hybrid Microfluidics

Graziano Pinna

Allopregnanolone May Be Beneficial to Treat COVID-19 Symptoms

Bellur S Prabhakar

Treatment or Prevention of SARS-CoV-2 Infection Using (S)-Crizotinib

Rui Xiong

Novel SARS-CoV-2 PLpro Inhibitors as Potential Treatment for COVID-19 Pandemic

Therapeutic and Vaccine Pipeline

