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TECH CONNECT

CTTC'S NEWS & UPDATES

January 2025

[ABOUT CTTC](#) | [FACULTY](#) | [INDUSTRY PARTNERS](#) | [STARTUPS](#)

FY25 (YTD)

Licenses & Options*: 142

MTAs: 595

CDAs: 33

Invention Disclosures: 128

U.S. Patents Issued: 34

**includes end-user software and materials licenses along with conventional technology licenses*

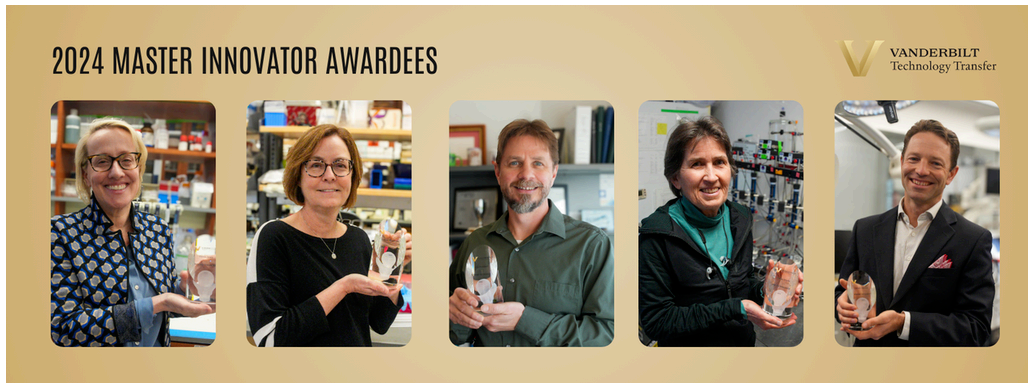
ANNOUNCEMENTS

Innovation Catalyst Fund Applications Opening Feb. 1st

The ICF is an initiative designed to accelerate translational research with commercial potential, fueling innovations to solve real-world problems. [LEARN MORE](#)

Questions? Contact [George Wilson](#) or [Heather Kachinko](#)

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RESEARCH & INNOVATION

Congratulations to our 2024 Master Innovators 🙌

The Master Innovators are chosen based on their achievements across multiple categories involving innovation and entrepreneurship, including inventions made, patents issued, technologies licensed, companies launched, products on the market, and several other factors. The 2024 class of Master Innovators are: Carrie K. Jones, Ph.D., Colleen Niswender, Ph.D., Alex Waterson, Ph.D., Colleen Brophy, M.D., and Robert Webster, Ph.D. [READ MORE](#)

ANNOUNCEMENTS

New Office, New LinkedIn Page

Big news! After 25+ years in 17th Ave., we have moved offices and are now officially residents of Loews Vanderbilt on West End. 🎉 Our second moving announcement is that we will be transitioning this profile to our official [CTTC LinkedIn page](#). Follow us on all our platforms below.



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CSL Research Acceleration Initiative

Applications close 20th February 2025

INDUSTRY OPPORTUNITIES

CSL's Research Acceleration Initiative aims to fast-track discovery of innovative biotherapies through partnerships between CSL and global research organizations. Successful applicants will receive funding of up to \$400,000 USD over 2 years.

Interested in Applying? Email [Swapneeta Date](#) to obtain online application submission instructions.

VIEW MORE OPPORTUNITIES



TECHNOLOGY SPOTLIGHT

Surgical Guide for Intraoral Vertical Ramus Osteotomy (VU21064)

Vanderbilt University researchers Dr. Susie Lin and Dr. Kevin Galloway developed a **novel surgical guide for Intraoral Vertical Ramus Osteotomy (IVRO)**. This minimally invasive, low-cost device is designed to conform to the natural curvature of the jaw, ensuring precise osteotomy cuts while protecting critical nerves and blood vessels. By addressing issues like open bite, long-term neurosensory deficits, and

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Prototypes are currently in testing, and a patent application has been filed. [LEARN MORE](#)

PATENTS ISSUED IN JANUARY

- Human Monoclonal Antibodies that Neutralize Pandemic GII.4 Noroviruses (12,188,053)
 - Generation of Human Allergen- and Helminth-Specific IgE Monoclonal Antibodies for Diagnostic and Therapeutic Use (12,188,945)
 - Efficient Gradient Waveform Measurements with Variable Prephasing (12,189,004)
 - Substituted Indole MCL-1 Inhibitors (12,195,472)
 - Conjugation of Lipophilic Albumin-Binding Moiety to RNA for Improved Carrier-Free In Vivo Pharmacokinetics and Gene Silencing (12,201,644)
 - Filterless Non-Dispersive Infrared Sensing Devices and Methods (12,209,949)
-

CTTC'S MONTHLY UPDATE

EXECUTED

- Implemented a new Startup Option Pledge, granting faculty startups a six-month window of protection to preserve their technology for them, at no cost, while they pursue company formation and other early startup activities before entering into a formal agreement with Vanderbilt for the intellectual property.
- Completed reviews and executed awards for the October 2024 cycle of the Innovation Catalyst Fund.
- Executed a license with a pharmaceutical company for novel compounds developed by Craig Lindsley and others at the Warren Center for Neuroscience Drug Discovery for the treatment of neurological and psychiatric disorders.
- Executed a license agreement with a pharmaceutical company to commercialize novel compounds developed for an undisclosed target by Craig Lindsley and others at the

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Warren Center.

- Executed a license agreement with Kharabela Ventures, Inc., a startup formed by Aditya Nanda (Department of Biomedical Engineering), for commercialization of the Nullspace software suite
- Executed a license agreement with Vanderbilt startup ImageAssist, Inc. (formed by Michael Golinko, VUMC Department of Plastic Surgery) for standardized photo app software developed in collaboration with VUMC Health IT colleagues.
- Executed a license agreement with MedChem Express for a metabotropic glutamate subtype 2 negative allosteric modulator developed by Craig Lindsley and the Warren Center for use in positron emission topography (PET) studies.
- Executed an option agreement with Vanderbilt startup Metionic Technologies (formed by Shihong Lin, Department of Civil and Environmental Engineering) for a lithium extraction technology.
- Executed an option agreement with Vanderbilt startup Arena Therapeutics (formed by David Charles and Mallory Hacker, VUMC Department of Neurology) for technologies related to the use of deep brain stimulation for early-stage Parkinson's Disease.
- Executed an option agreement with Vanderbilt startup Telescope Healthcare, LLC (formed by Leon Scott, VUMC Department of Orthopedic Surgery, and Sahar Takkouche, VUMC Department of Medicine) for the predictive analysis software suite Cornelius, developed by Daniel Byrne and colleagues (Department of Biostatistics)
- Executed an MTA on behalf of Buddy Creech (VUMC Department of Pediatrics) to join a large consortium of universities and medical centers, led by Boston Children's, to study myocarditis, pericarditis, and TTS.
- Executed an MTA with WHO IARC to perform genomic studies of blood samples from around the world on behalf of Quiyin Cai (VUMC Division of Epidemiology)
- Executed a CDA with a startup to assess technology developed by Youngmin Lee (VUMC Department of Surgery)

MARKETED

- Met with a sunscreen/skin care company to discuss a biodegradable pod packaging formulation for sunscreen developed by previous Vanderbilt undergraduates Liyu Huand and Brian Ratangee.
- Held discussions with Peter Embi (Department of Biomedical Informatics) and a local startup interested in commercializing his "Algorithmovigilance" platform.
- Met with Eric Heinz of Heinz Ventures in Memphis to learn more about his venture studio

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Dave Kent (Department of Otolaryngology and Daniel Fabbri (Department of Biomedical Informatics).

- Promoted Vanderbilt portfolio companies to local, regional, and national venture capital firms and Silicon Valley Venture Studio: Arena Therapeutics, Chalk Coaching, Duet Biosystems, Finally Skincare, Image Assist, Metionic, MobiusAI and PathEX.
- Conducted pilot study with Minnow Ventures to evaluate three early drug discovery projects for R&D insights and commercial strategies.
- Held diligence discussions with a pharmaceutical company interested in various anticancer compound programs (Steve Fesik, Department of Biochemistry, and Bill Tansey, Department of Cell and Developmental Biology)
- Held term sheet negotiations with a biotechnology company interested in the WNT inhibitor program developed by Steve Fesik (Department of Biochemistry)
- Pitched Southeast Venture Showcase (inaugural event in Nashville in April 2025) to five new sponsors, to new stakeholders (including Oak Ridge National Laboratory), to a leading Nashville architectural firm, and to Venture Atlanta.
- Marketed new Vanderbilt startup project (led by Dave Smith, VUMC Department of Radiology) to area investors.
- Held license term sheet negotiations with a startup company interested in commercializing anticancer compounds developed by Brian Bachmann (Department of Chemistry) and Michael Savona (VUMC Department of Medicine)
- Coordinated outreach and proposal submission for industry collaboration opportunities with Novartis, Sanofi, Ono Pharma, and several other biotech, pharmaceutical, and life sciences companies.
- Continued negotiations for an option agreement with a pharmaceutical company for neuromodulation compounds developed by Craig Lindsley and the Warren Center.

MEETINGS/EVENTS

- Presented Master Innovator Awards for 2024 to Colleen Niswender, Colleen Brophy, Carrie Jones, Bob Webster, and Alex Waterson.
- Partnered with the Wond'ry Innovation Center, along with Space Foundation, Blue Origin, Arizona State University, University of Central Florida, and the University of Florida to support the first cohort for the Space Edge Biomedical Accelerator, culminating in a Virtual Showcase.
- Led a quarterly working group meeting with leaders from Columbia University, the University of Arizona, the University of Michigan, Baylor College of Medicine, and the

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University of Georgia to discuss strategies to launch and run programs at their own institutions patterned after the Vanderbilt Innovation Ambassadors program.

- Attended final pitch presentations by teams in the undergraduate Engineering class Nanoscale Innovation and Making, where teams presented their business concepts and prototypes they fabricated in the clean room.
- Attended project presentations from Professor Nilanjan Sarkar's Robotics and Autonomous Systems Lab.
- Attended the VISE Symposium to market CTTC services to new VISE faculty and students.
- Held monthly Ancora project sourcing calls with scientific liaisons at Deerfield Drug Discovery and additional meetings with new faculty to discuss potential for Ancora Innovation to support their work.
- Innovation Ignition Fund (funded by the School of Medicine Basic Sciences and the Office of the Vice Provost for Research and Innovation): conducted bi-weekly project team meetings and led preparation and presentation of Progress Against Milestones for the project to the review committee.
- Attended VICB Operations Committee Meeting and Project Review Meetings to advise and advance projects with translational potential.
- Hosted Innovation Ambassadors Winter 2024 Lunch at CTTC's new office (Loews) and launched new Ambassador liaison program to better support our Ambassadors
- Attended Brock Center's Innovator of the Year Event, featuring Jeff Dendy (VUMC Cardiovascular Medicine and founder of Heartvue.AI)
- Met with Abhinav Gupta (Department of Civil and Environmental Engineering) regarding a new algorithm he is developing with potential use in new battery design, additive manufacturing, and other applications.
- Met with Dan Work (Department of Civil and Environmental Engineering) to discuss launching a startup
- Industry Affiliates Programs (IAP) – continued development of an IAP structure across the university to provide a mechanism for faculty researchers in centers and institutes to build sustainable relationships with companies to discuss and explore broad research topics and provide current use funds to contribute to strategic goals. Current programs include:
 - [VALIANT](#)– Vanderbilt Lab for Immersive AI Translation
 - [VISE](#)- Vanderbilt Institute for Surgery and Engineering
 - [VINSE](#)– Vanderbilt Institute of Nanoscale Science and Engineering
- Attended a Bay Area forum for university-industry collaborations

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- Attended GNVCA's "How to Raise a Fund" seminar
- Attended the Partnership 2030 Economic Council Retrospective and Full Investor Meeting
- Attended the BIP Capital Markets seminar
- Attended the Greater Nashville Tech Council holiday meeting
- Participated in the Cumberland Emerging Technologies Life Sciences Center Advisory Board Meeting
- Participated in the NIH REACH 2025 Annual Meeting
- Participated in the Osage University Partnership annual member meeting
- Held a strategic partnership discussion with Cambridge (UK) Future Tech accelerator/venture fund
- Hosted Jeff Dendy (VUMC Cardiovascular Medicine and CEO of Heartvue.AI) at an Entrepreneurship Advisory Council (EAC) meeting
- Conducted I-Corps Mid-South Hub planning meeting for the Southeast Venture Showcase
- Continued discussions with a venture capital firm on how to partner with Vanderbilt faculty to develop therapeutic compounds
- Hosted a New York-based venture capital firm visiting the Vanderbilt Innovation Ecosystem
- Met with Jules White (Department of Computer Science) and team to discuss the commercialization of generative AI tools through a startup company
- Met with an entrepreneurial coaching company to discuss the business plan for a VUMC startup company
- Met with Appello Pharmaceuticals to review development efforts and plans for mGlu4 positive allosteric modulators previously licensed from Vanderbilt for treatment of Parkinson's disease.
- Held a venture building strategy call with Fraunhofer (Germany)
- Hosted a global medical device company to discuss potential collaboration opportunities and toured the Vanderbilt Institute for Surgery and Engineering ([VISE](#))
- Met with Eli Lilly representatives to address future plans for basic and clinical research in the addiction space and advocate for partnership with VUMC/VU
- Gave a career perspective talk to VU graduate students
- Participated in call with Dr. Swamy Tripurani, PhD., Program Director, SBIR Development Center, NCI, VUMC faculty, and New Venture Development team to discuss strategy for an SBIR application

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- Met with a large pharmaceutical company and Ivelin Georgiev (Department of Medicine) to discuss sponsored research
- Facilitated campus visit and coordinated meetings between VU/VUMC investigators and a biopharma startup to explore research partnerships
- Held call with a CRO to plan for sourcing materials to enable assay development for internal drug discovery projects

Center for Technology Transfer and Commercialization

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