FY24

Lawrence Livermore National Laboratory

FY24 TECHNOLOGY TRANSFER REPORT

Accelerating Innovation Through Collaboration

Lawrence Livermore National Laboratory

IPO

IPO AT A GLANCE

ABOUT US

Lawrence Livermore National Laboratory's (LLNL) Innovation and Partnerships Office (IPO) is the focal point for Laboratory engagement with industry.

Organizations partner with LLNL to unlock the commercial viability of breakthrough technologies invented at the Laboratory and collaborate to mature them in order to solve complex industry challenges.

LLNL technology transfer connects cutting-edge science with real-world applications, empowering businesses to thrive while advancing the nation's technological edge. We do this by identifying new economic opportunities, protecting LLNL intellectual property (IP) and transferring it to the private sector through licensing and partnerships.

LETTER FROM
THE IPO DIRECTOR

The 2024 fiscal year (FY24) was a transformative one for our organization. It was a journey marked by growth, evolution and renewed energy. As we reflect on where we've come from, it's important to honor the strong foundation built by the incredible individuals and teams who brought us to this point. Their dedication and contributions laid the groundwork for IPO's continued success and positioned us to embrace the opportunities ahead.

Over this year, we welcomed new talent, reimagined team structures and adopted innovative approaches that have reshaped how we collaborate and achieve results. These changes weren't just about adapting to new challenges — they were about unlocking new possibilities.

This transformation has brought about change—but more importantly, growth—at IPO: in how we work, how we connect and how we deliver on our technology transfer mission. Fresh perspectives and diverse ideas have infused our work with creativity and momentum, enabling us to think differently and act boldly.

I'm deeply proud of the resilience, adaptability and vision that have defined this journey. As we move forward, we carry with us the best of what was, combined with the excitement of what's emerging. Together, we are poised for an even brighter future.

This report offers a glimpse into the opportunities for collaboration with LLNL by highlighting FY24's successes and our office's evolution. We invite you to connect with IPO to leverage LLNL's intellectual property, scientific expertise and facilities to drive innovation for your organization.

MATTHEW GARRETT, IPO DIRECTOR

MISSION

IPO's mission is to bring scientific breakthroughs to market through research collaborations, technology commercialization and empowering entrepreneurship.

VISION

IPO facilitates partnerships to deliver mission-driven solutions that support national security and grow the U.S. economy. IPO pursues big ideas by protecting LLNL innovations and fostering industry engagements.

ORGANIZATIONAL UPDATES

EXPANDING SOFTWARE ACCESS

FIGURE 1 IMAGE CREATED BY CHARLOTTE ENG/LLNL USING ADOBE STOCK.

In FY24, IPO made significant strides in enhancing access to LLNL's innovative technologies with the launch of a new Software Licensing Portal. This portal streamlines the process for external organizations to license LLNL-developed software, making it easier than ever to leverage our cutting-edge solutions for real-world applications. Designed with user experience in mind, the portal offers a centralized, efficient platform for exploring available software and initiating licensing agreements.

This initiative reflects LLNL's commitment to fostering impactful partnerships and accelerating technology transfer. By simplifying access to our intellectual property (IP), we aim to empower industry, academia and government collaborators to drive innovation and address complex challenges. The portal is a testament to our ongoing efforts to expand LLNL's reach and amplify the societal benefits of our research and development. We look forward to seeing the transformative outcomes this resource will enable.

ELSIE QUAITE-RANDALL, IPO DEPUTY DIRECTOR

ADVANCING OUR INNOVATION EVALUATION PROCESS

As we continue to strengthen LLNL's approach to managing intellectual property (IP), IPO is refining our innovation evaluation process to ensure we're making thoughtful, strategic investments. This updated framework introduces a rigorous, multi-step diligence process for evaluating inventions — bringing stakeholders together to ensure alignment and responsible decision-making.

Equally as important, we're fostering LLNL-wide alignment around a shared IP investment philosophy. By working collaboratively, we're positioning LLNL to build stronger IP portfolios that address market-driven needs and open doors to deeper private sector engagement.

Looking ahead, these updates will help us create clearer, more impactful portfolios that resonate with industry partners and drive long-term collaboration. This is a key step in strengthening LLNL's role as a trusted innovation leader, and I'm confident this refined process will help us deliver even greater value to our partners and the broader community.

HANNAH FARQUAR, BUSINESS INTELLIGENCE AND MARKET ANALYSIS (BIMA) GROUP LEAD

ADVANCING BUSINESS DEVELOPMENT FOR GROWTH

In FY24, LLNL strengthened its commitment to fostering strategic industry partnerships by hiring four new business development executives (BDEs). These seasoned professionals bring diverse expertise and a proven track record in relationship building — enabling LLNL to deepen engagement with industry leaders and expand the reach of our innovative capabilities. To maximize their impact, we also implemented a strategic re-alignment of portfolios to ensure each executive is focused on areas that align with their specialized knowledge and experience. We are excited about the momentum this team will create and the relationships they'll build for LLNL as a trusted partner in innovation.

ELSIE QUAITE-RANDALL, IPO DEPUTY DIRECTOR

TRANSFORMING PARTNERSHIP AGREEMENTS

Along with IPO's strategic balancing of its portfolios among our new BDEs in FY24, we executed on a new vision for the way our team collaborates to achieve partnerships. Looking for ways to invest in future LLNL career growth, skill development and ensuring IPO closes strong deals, we reorganized the foundation of a new Agreements team. This is the most significant shift in years — aligning Agreements team members from a process orientation to a focus on results through shepherding, negotiating and executing impactful agreements.

The primary purpose of the Agreements team is to execute quality agreements in support of IPO's and LLNL's missions. Working closely with our BDEs, this shift in how we turn opportunities into partnerships will open new avenues for partner outreach, produce agreements that deliver impact and provide new career development paths for existing IPO staff. More is to come on this front in FY25.

CHARITY FOLLETT, AGREEMENTS TEAM GROUP LEAD

PREPARING TO LAUNCH A NEW DATABASE IN FY25

The pre-launch groundwork for Sophia, the new Knowledge Management System (KMS) tool for FY25, was a critical initiative for technology transformation in IPO. Extensive planning ensured that Sophia's advanced capabilities were aligned with organizational goals to enable secure and efficient operations. Pre-launch activities focused on ensuring the accurate migration of sensitive inventions, intellectual property assets and contracts, safeguarding compliance for critical functions. Data transfer was optimized to support Sophia's Extract, Transform, Load (ETL) processes, ensuring data integrity for reporting and scalability. In addition, we developed a dedicated training website to offer tailored resources, tutorials and documentation to address IPO and LLNL-specific needs alongside rigorous testing and training programs for a successful Sophia launch in FY25.

JOSEPH CORRALES, IPO BUSINESS ANALYST

MEET THE NEWEST MEMBERS OF IPO

ALEX HESS

Alex Hess is the Business Development Executive responsible for handling the commercialization efforts and management of IP and partnership creation centered around National Ignition Facility (NIF) technologies, including Inertial Fusion Energy (IFE), Advanced Photon Sciences (APS) and more.

He joined IPO in June 2024 and brings a distinctive blend of scientific and business acumen to his role. Prior to LLNL, Alex spent 12 years working at the bench as a materials scientist/chemist, an inventor and an early employee at two advanced materials startups and venture capital. Because of these experiences, Alex developed a unique perspective and tangible knowledge in how to take science from a concept to a commercial reality.

BDE: Laser & Optics Portfolio

AUSTIN SMITH

Austin Smith is the Business Development Executive responsible for handling commercialization efforts for Advanced Manufacturing, Instruments, Sensors and Electronics at LLNL. He joined IPO in September 2024 with over thirteen years of experience as an applied scientist, chemist and a research and development (R&D) Program Manager in Silicon Valley.

Early in his career, Austin focused on optical polymers, ligands and formulation chemistry, aiding the commercialization of Nobel Prize-winning Quantum Dots. He is also an inventor with more than a dozen patents in the areas of Quantum Dot nanocomposites, optical polymer formulations and transparent organic photovoltaics. His experience developing products gives him an application-oriented focus for technology transfer and partnership development, as does his experience working at different stages of technology maturation and commercialization.

BDE: Advanced Manufacturing and ISE Portfolios

CLARENCE CANNON

Clarence Cannon is a seasoned technology leader and steward. He joined IPO as a Business Development Executive in September 2024 and is responsible for managing the tech transfer of LLNL's advanced computing, artificial intelligence / machine learning (AI/ML), quantum and space technologies — converting cutting-edge research into practical impact.

With more than a decade of experience as a two-time co-founder and Chief Technology Officer, Clarence has steered the creation and launch of multiple technology platforms. His solid physics background, strategic acumen and relentless focus on innovation allow him to guide diverse teams through complex projects, delivering measurable value across national security missions and commercial market opportunities.

BDE: Advanced Computing, AI, Quantum and Space Portfolios

JULIA KERR

Julia Kerr is a Business Development Executive who joined IPO's Business Intelligence and Market Analysis (BIMA) group as its market analysis lead in April 2024. She is responsible for evaluating LLNL technologies for market fit and commercialization potential — helping to bridge the gap between scientific innovation and industry needs.

In this role, she has also helped support various entrepreneurial programs focused on training researchers in market evaluation and boosting commercialization potential of research. Julia joined LLNL in 2022 with a PhD in analytical chemistry and an MBA in organizational behavior and entrepreneurship from UC Davis, along with a passion for empowering researchers to communicate the value of their work in both academic and commercial settings.

BDE: Business Intelligence & Market Analysis (BIMA)

LALITA ALDACO

Lalita Aldaco joined IPO in September 2024 as the team's new Administrative Specialist. She is responsible for providing cross-team support that is instrumental in driving efficiency and collaboration. She does this by managing complex administrative operations and organizational activities, coordinating high-level interactions and ensuring seamless execution of critical tasks, including executive administrative responsibilities for IPO's Director. Lalita manages calendars, travel arrangements and large-scale events for IPO, in addition to facilitating internal team building.

IPO Administrative Specialist

MELISSA LEWELLING

Melissa Lewelling joined IPO as its new Communications Manager in March 2024. She is responsible for developing an integrated communications strategy as well as cross-platform content, executive messaging and multimedia success stories to amplify the reach of IPO's technology transfer mission internally and externally.

Melissa came to LLNL with a decade of experience in business-to-business, deep tech content development and communications strategy. In that time, she worked as a technology journalist, social media professional and eventually as an Account Director at a Silicon Valley-based communications agency. Her agency clients ranged from large global technology corporations to startups and R&D incubators. Her passion is translating complex topics into compelling, digestible storytelling that engages the right audiences for impact.
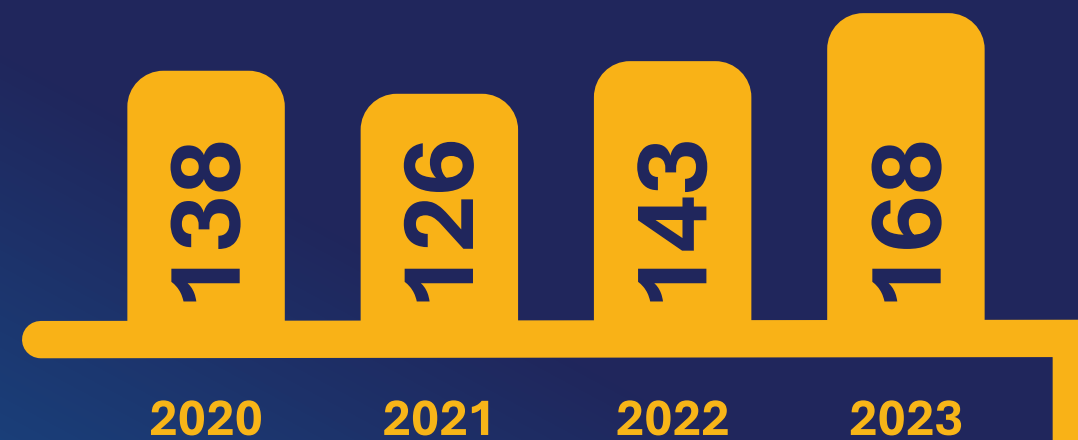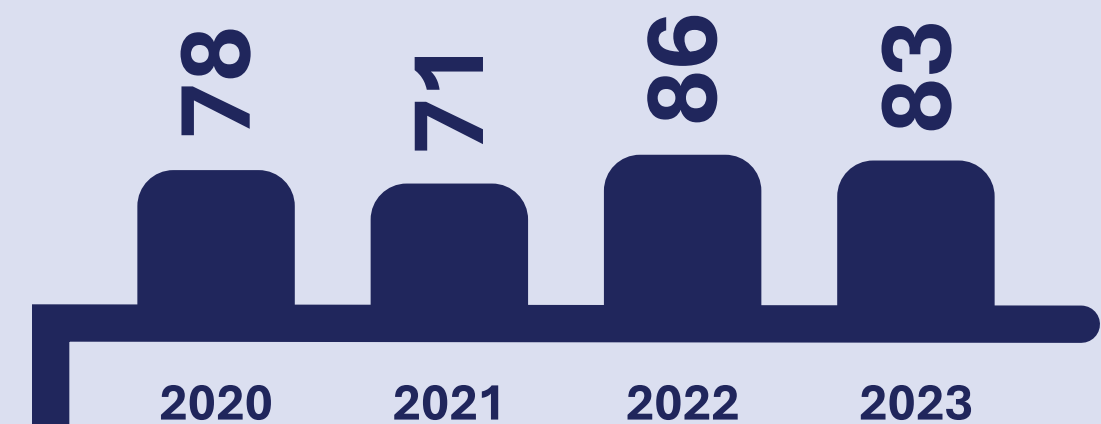
IPO Communications Manager

BY THE NUMBERS

201

TOTAL FY24 COPYRIGHTS

138	126	143	168
2020	2021	2022	2023

13

TOTAL FY24 COPYRIGHT ASSERTIONS

78	71	86	83
2020	2021	2022	2023

119

TOTAL FY24 INVENTION DISCLOSURES

126 **2020**
92 **2021**
76 **2022**
120 **2023**
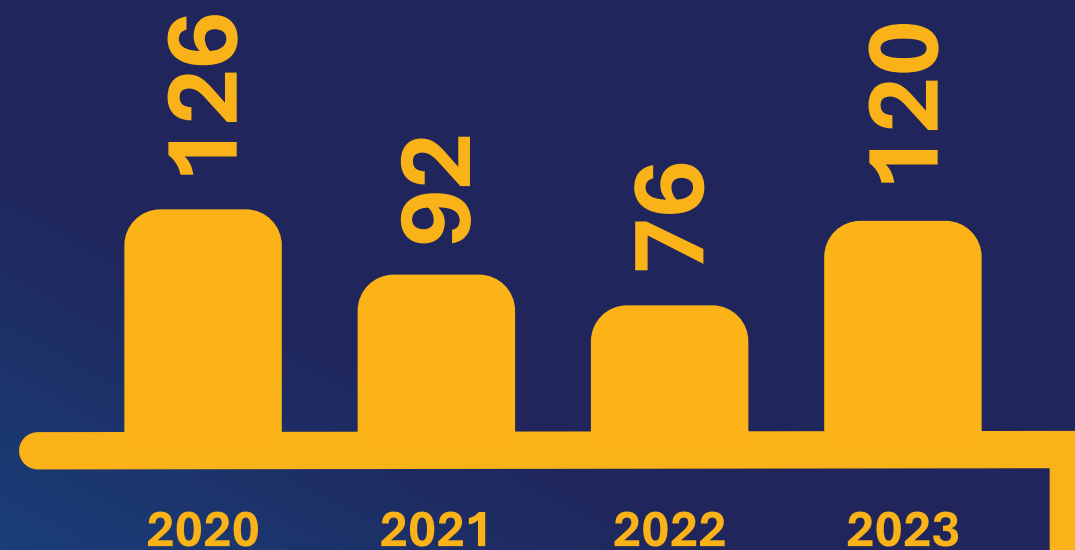
1,595

ISSUED PATENTS AVAILABLE WITHIN THE BROADER LLNL PATENT PORTFOLIO

134

TOTAL U.S. PATENTS FILED IN FY24 (PROVISIONAL & NON-PROVISIONAL)

130

TOTAL U.S. PATENTS ISSUED IN FY24

215

TOTAL PATENTS ISSUED GLOBALLY IN FY24**

**includes U.S. and foreign

$7,412,046

CRADA PARTNER FUNDS TO LLNL IN FY24

$13,793,610.00

$12,044,490.31

$8,656,421.30

$6,071,076.55

| 2020 | 2021 | 2022 | 2023 |
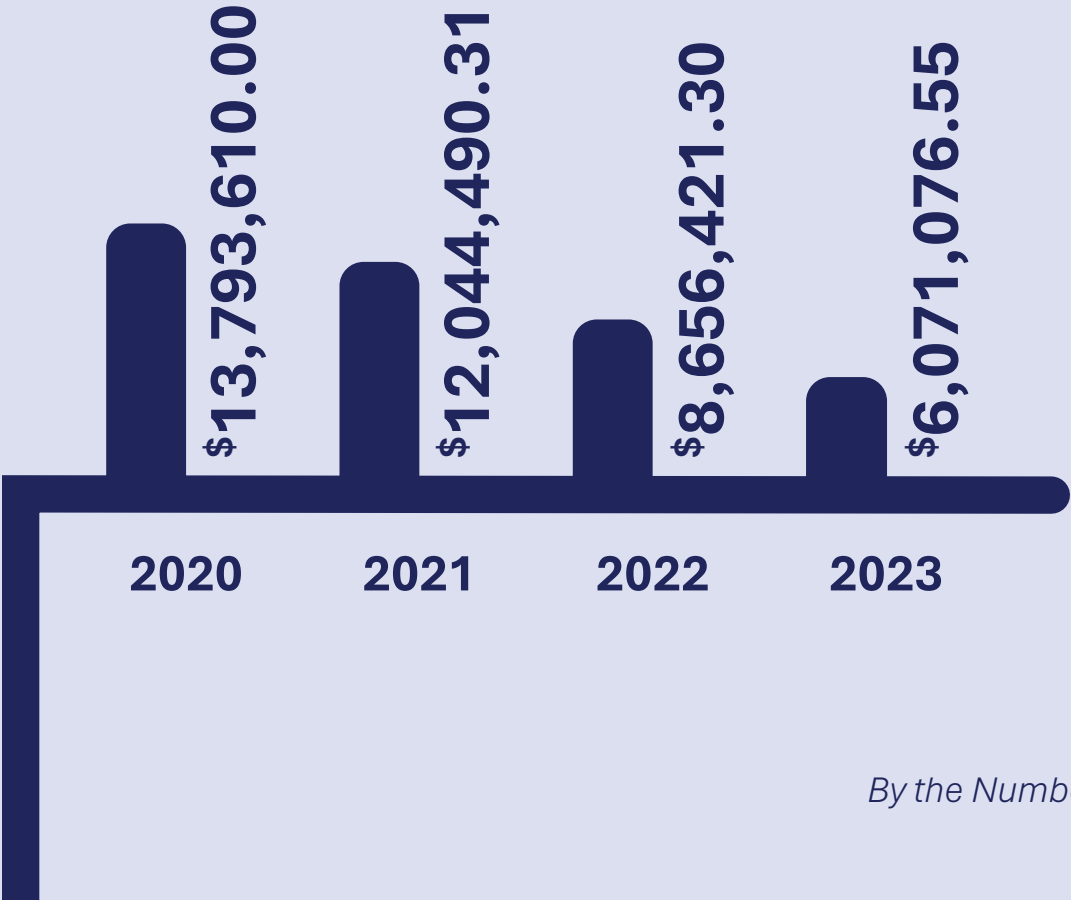
COOPERATIVE RESEARCH & DEVELOPMENT AGREEMENT (CRADA) AGREEMENTS

59

ACTIVE CRADAS IN FY24

2020	2021	2022	2023
65	70	65	65
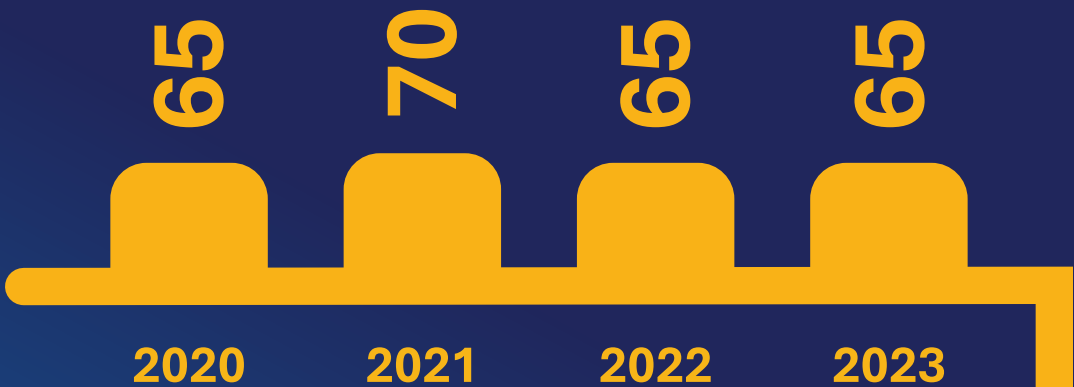
COOPERATIVE RESEARCH & DEVELOPMENT AGREEMENT (CRADA) AGREEMENTS

13

NEW CRADAS IN FY24

2020	2021	2022	2023
21	21	13	17

349

ACTIVE IN FY24

363 | 364 | 374 | 352
2020 | 2021 | 2022 | 2023
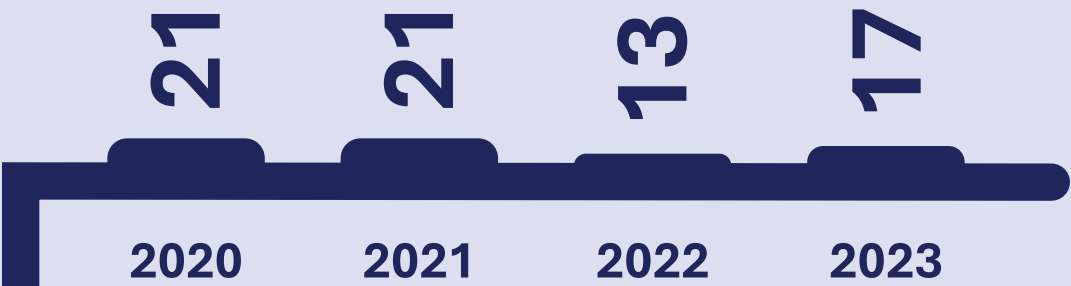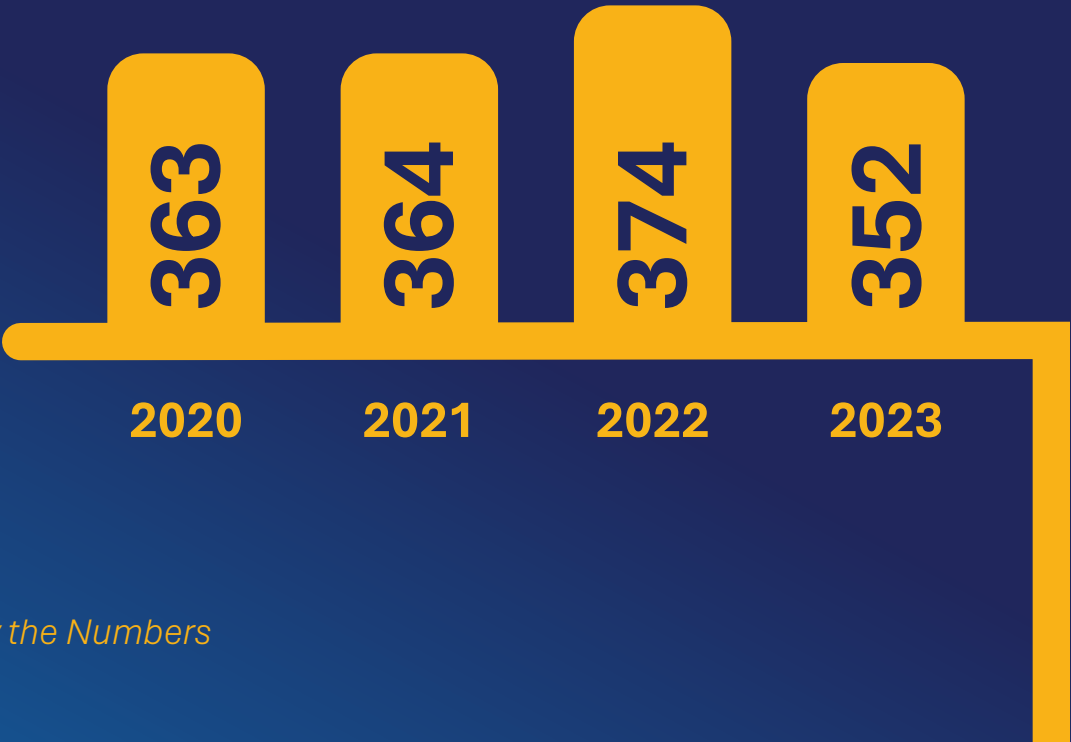
19

NEW IN FY24

**licenses with commercial companies
(not all active income-bearing licenses)

10

NEW CRADAS WITH
SMALL BUSINESSES IN FY24

33

ACTIVE CRADAS WITH
SMALL BUSINESSES IN FY24
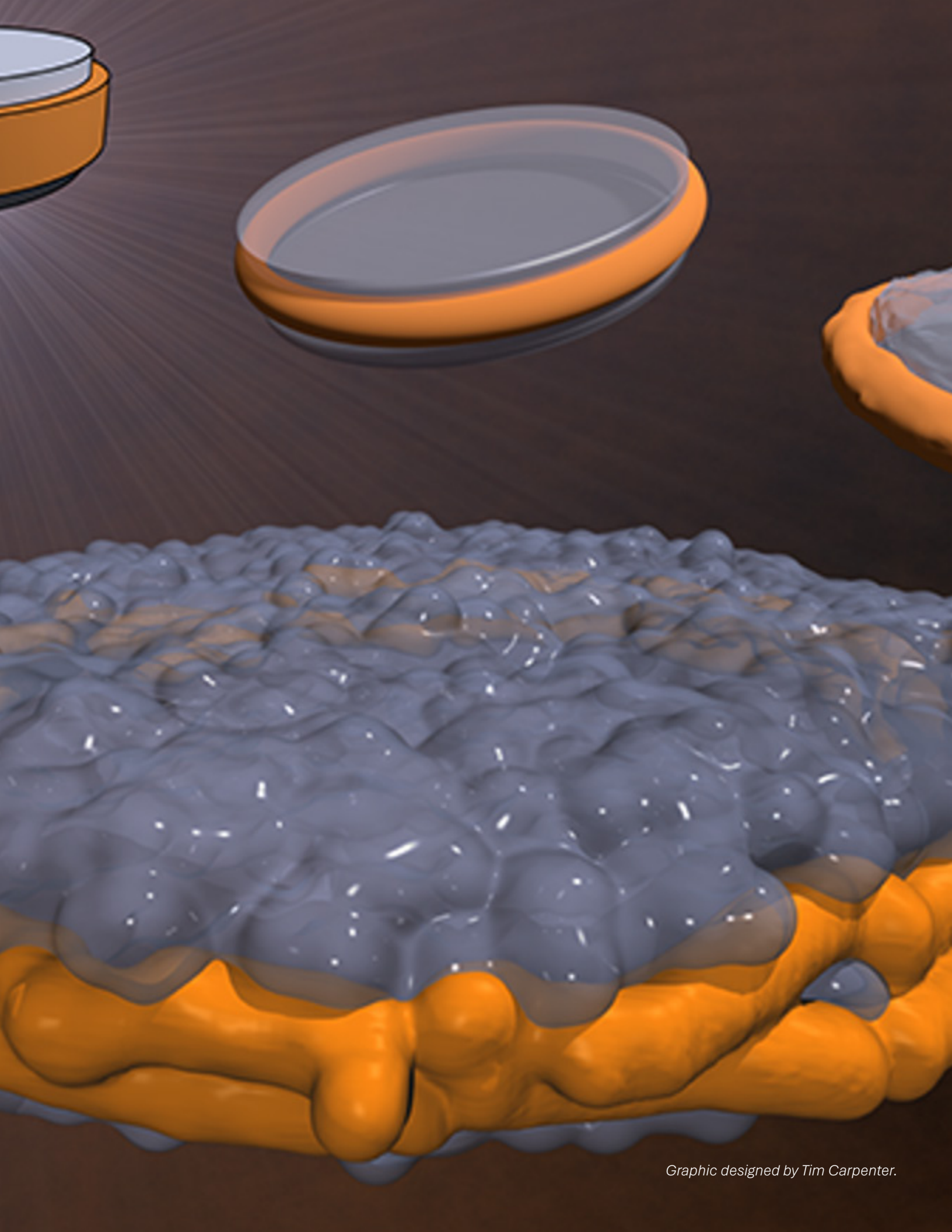
06

NEW LICENSES GRANTED TO SMALL BUSINESSES IN FY24**

**only includes new patent or commercial fee-bearing software licenses

CELEBRATING LLNL INNOVATORS

Graphic designed by Tim Carpenter.

FY24 AWARD WINNERS

Federal Laboratory Consortium (FLC)

In April 2024, Lawrence Livermore National Laboratory (LLNL) biologist Nicholas Fischer — one of the co-inventors of a biomedical technology called nanolipoprotein particles (NLPs) — and Yash Vaishnav — the Innovation and Partnership Office's (IPO's) Business Development Executive responsible for LLNL's life science, biotechnology and healthcare intellectual property (IP) portfolio — were awarded LLNL's 42nd technology transfer award from the Federal Laboratory Consortium (FLC) for their work commercializing the technology with EVOQ Therapeutics. Vaishnav was also recognized for this work by the Department of Energy's Technology Transfer Working Group (TTWG) at its Spring Meeting in May 2024, where he received TTWG's "Best in Class" award for licensing.

Figure 2 (From left) EXUDE Elite team members Michael Rushford, Brad Hickman, James Nissen, Hoang Nguyen, Candis Jackson, and Sean Tardif are photographed with their 2024 R&D 100 award. (Photo courtesy of Roger Morales.)

FY24 AWARD WINNERS

R&D 100 Awards

In August 2024, the trade journal R&D World Magazine announced the winners of the R&D 100 awards — often called the "Oscars of innovation" — recognizing new commercial products, technologies and materials available for sale or license. The annual awards go to the top 100 inventions worldwide for their technological significance, and in FY24, Lawrence Livermore National Laboratory (LLNL) received three.

LLNL's FY24 R&D 100 award wins included a spectral beam combining optic that enables a single, high-power beam with unparalleled compactness and damage resistance (EXUDE Elite); an open-source memory-mapping library with increased power and flexibility for deep, complex memory and storage systems in high performance computing (UMap); and a user-level file system for high-performance computing that enables fast, dynamic input/output operations (UnifyFS).

EXUDE Elite was developed by a team of LLNL researchers that was led by Diffractive Optics Group Leader Hoang Nguyen and that included Michael Rushford, Brad Hickman, Candis Jackson, James Nissen and Sean Tardif.

The UMap team was led by LLNL computer scientist Maya Gokhale — a distinguished member of the technical staff (DMTS) — and included team members Marty McFadden, Elena Green, Roger Pearce, Keita Iwabuchi and Karim Youssef as well as former Lab employee Ivy Peng.

UnifyFS collaborators were LLNL and Oak Ridge National Laboratory, as well as the National Center for Supercomputing Applications at the University of Illinois. The LLNL part of the UnifyFS team was led by LLNL computer scientist Kathryn Mohror — also a DMTS — and included team members Cameron Stanavige, Chen Wang, Hariharan Devarajan, Ned Bass and Tony Hutter, as well as former Lab employees Adam Moody and Danielle Sikich.

Designed by Mark Gartland/LLNL.

ENTREPRENEURSHIP PROGRAMS

A core part of the Innovation and Partnerships Office's (IPO's) technology transfer mission is training Lawrence Livermore National Laboratory (LLNL) scientists to approach their research with a business framework in mind and to communicate with industry and government stakeholders in a way that resonates with market need.

Historically, this has included supporting programs such as the National Lab Accelerator Pitch Event — described as a "Shark Tank" for Department of Energy (DOE) national laboratory researchers — as well as DOE's Energy I-Corps (EIC) and the National Lab Entrepreneurship Academy (NLEA).

While spin-off companies based on LLNL technology have formed as a result of this entrepreneurial training, many of our researchers also stay at the Laboratory and collaborate with industry partners interested in progressing the inventions to maturity with future commercialization in mind. Both paths are welcomed and celebrated as accomplishments of LLNL scientists and their innovations.

Figure 3 Lab scientists Michael Ford and Sijia Huang (second and third from the left) gave a presentation about their Energy I-Corps experience and research to Congressman Eric Swalwell of California's 14th district (center). Also shown are Danielle France of the National Renewable Energy Laboratory (far left), and to the right of Swalwell are Yiğit Mengüç, the Lab scientists' mentor; Shelly Curtiss, the Energy I-Corps program manager; and Carolina Villacis, commercialization program manager for the Office of Technology Commercialization.
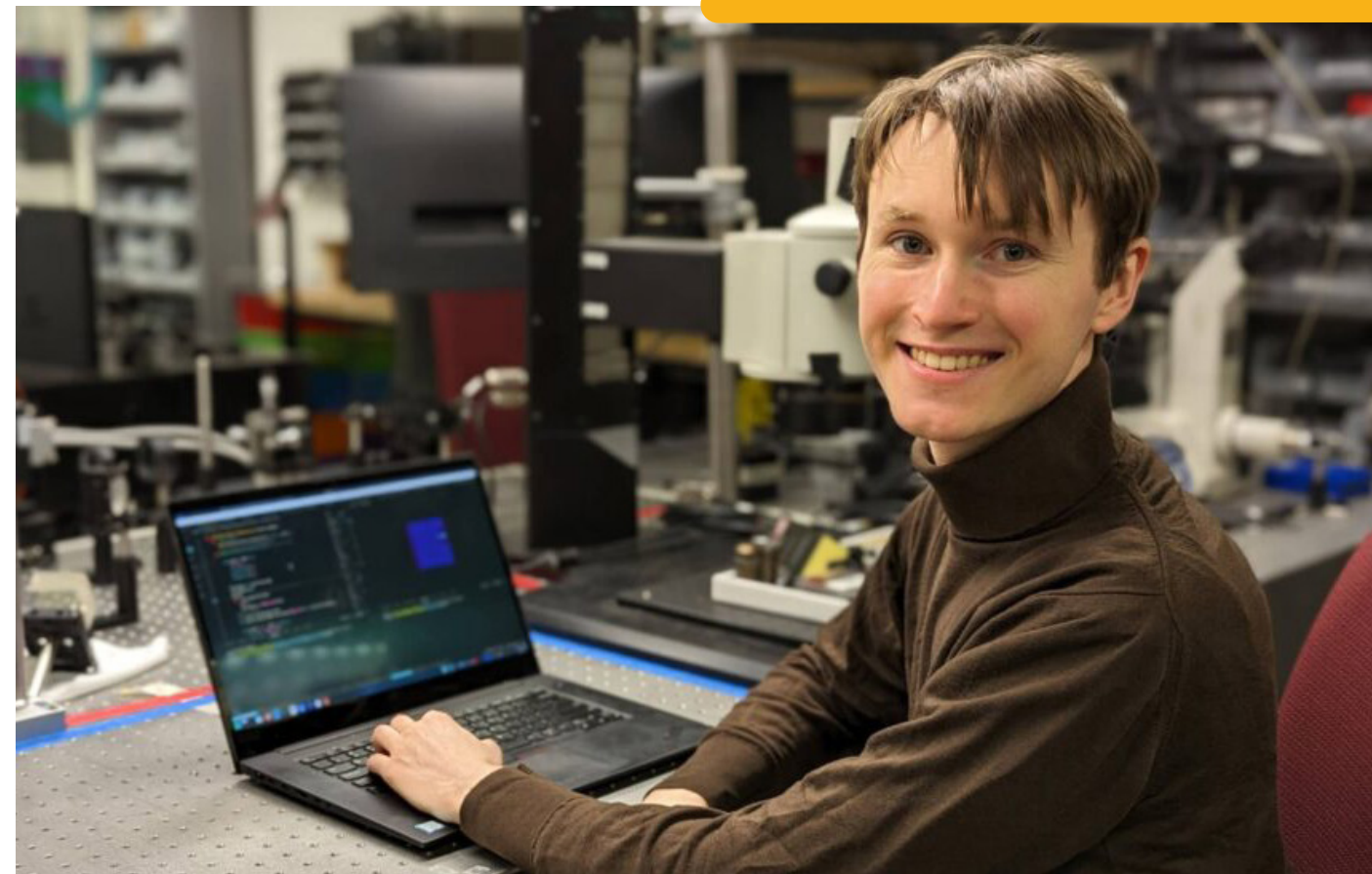
LLNL scientists Sijia Huang and Michael Ford participated in the Fall 2023 EIC Program, where their team (PhotoSil) focused on revolutionizing the production of complex silicone components and creating capacity for local manufacturing. This stemmed from their 2023 LLNL work developing a new method to make high-performance silicone parts that can be 3D printed and cured using ultraviolet light.

Figure 4 Anup Singh, the principal associate director for Engineering at LLNL, making opening remarks at the 2024 National Labs Entrepreneurship Academy (NLEA). (Photo: Hannah Farquar/LLNL)

Figure 5 Hertz Fellow Charles Dove, a fourth-year electrical engineering and computer science PhD student at the University of California, Berkeley, became the first Fellow to attend the National Laboratory Entrepreneurship Academy (NLEA). Photo courtesy of Hertz Foundation.

Thirty-four LLNL researchers participated in the National Lab Entrepreneurship Academy (NLEA), an intensive commercialization program co-hosted by IPO and UC Davis's Graduate School of Management for Laboratory scientists and engineers from LLNL and Sandia National Laboratories-California to teach the fundamentals of entrepreneurial business.

A new collaboration between LLNL and the Fannie and John Hertz Foundation allowed up to three Hertz Fellows a year to attend NLEA. In March 2024, Hertz Fellow Charles Dove, a fourth-year electrical engineering and computer science PhD student at the University of California, Berkeley, became the first Fellow to attend the Entrepreneurship Academy. Dove studied how to use artificial intelligence (AI) technologies to simulate the behavior of light and better understand electromagnetic wave physics. His research has implications in developing new microscopy, medical imaging and photonic and remote sensing technologies.

FY24 SUCCESS STORIES

Graphic by Amanda Levasseur/LLNL.

BRIDGEBIO ONCOLOGY:

Pioneering Cancer Treatment with LLNL Technology

In a substantial milestone for supercomputing-aided drug design, Lawrence Livermore National Laboratory (LLNL) and Theras, a subsidiary of BridgeBio now spun out as BridgeBio Oncology Therapeutics (BBOT), announced Phase I clinical trials for two first-in-class drug candidates that target specific genetic mutations implicated in many types of cancer.

The development of the new drug candidates — BBO-8520 and BBO-10203 — is the result of collaboration among LLNL, BBOT and the National Cancer Institute's (NCI's) RAS Initiative at the Frederick National Laboratory for Cancer Research (FNL). In a first for a Department of Energy (DOE) national laboratory, the drugs were discovered through DOE's leadership in high performance computing (HPC) for mission applications, combined with an LLNL-developed platform integrating AI and traditional physics-based drug discovery and effective partnership with BBOT and FNL.

The drug discovery work was powered by LLNL supercomputers Ruby (shown), Quartz and Lassen. Innovation and Partnerships Office (IPO) Business Development Executive Yash Vaishnav negotiated the Cooperative Research & Development Agreement (CRADA), as well as the license agreement for the drug candidate with BBOT. The IPO Agreement Specialist involved was Samantha Madru.

A-ALPHA BIO:

Advancing Protein Interaction Insights with LLNL Collaboration

A-Alpha Bio, a biotechnology company harnessing synthetic biology and machine learning (ML) to measure, predict and engineer protein-protein interactions, received $14.5 million in additional funding from the Department of Defense (DOD) Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense's (JPEO-CBRND's) Generative Unconstrained Intelligent Drug Engineering (GUIDE) program to further expand its partnership with Lawrence Livermore National Laboratory (LLNL).

The partnership with LLNL was first announced in 2022 to generate data and train ML models for the prediction of protein-protein interactions between antibodies and COVID-19 variants to increase the speed of therapeutic response to emerging strains. The additional funding expanded the collaboration to other potential biothreats.

A-Alpha Bio's AlphaSeq platform represents the first large-scale and quantitative approach for measuring protein-protein interactions. Antibody libraries from LLNL and others will be synthesized and cloned into the AlphaSeq platform to measure all pairwise interactions between each antibody and a library of antigen variants. LLNL will use the binding data to train and refine ML models that learn the affinity landscape across antibody and antigen sequence space. Innovation and Partnerships Office (IPO) Business Development Executive Yash Vaishnav facilitated the partnership. The IPO Agreement Specialist is currently Samantha Madru.
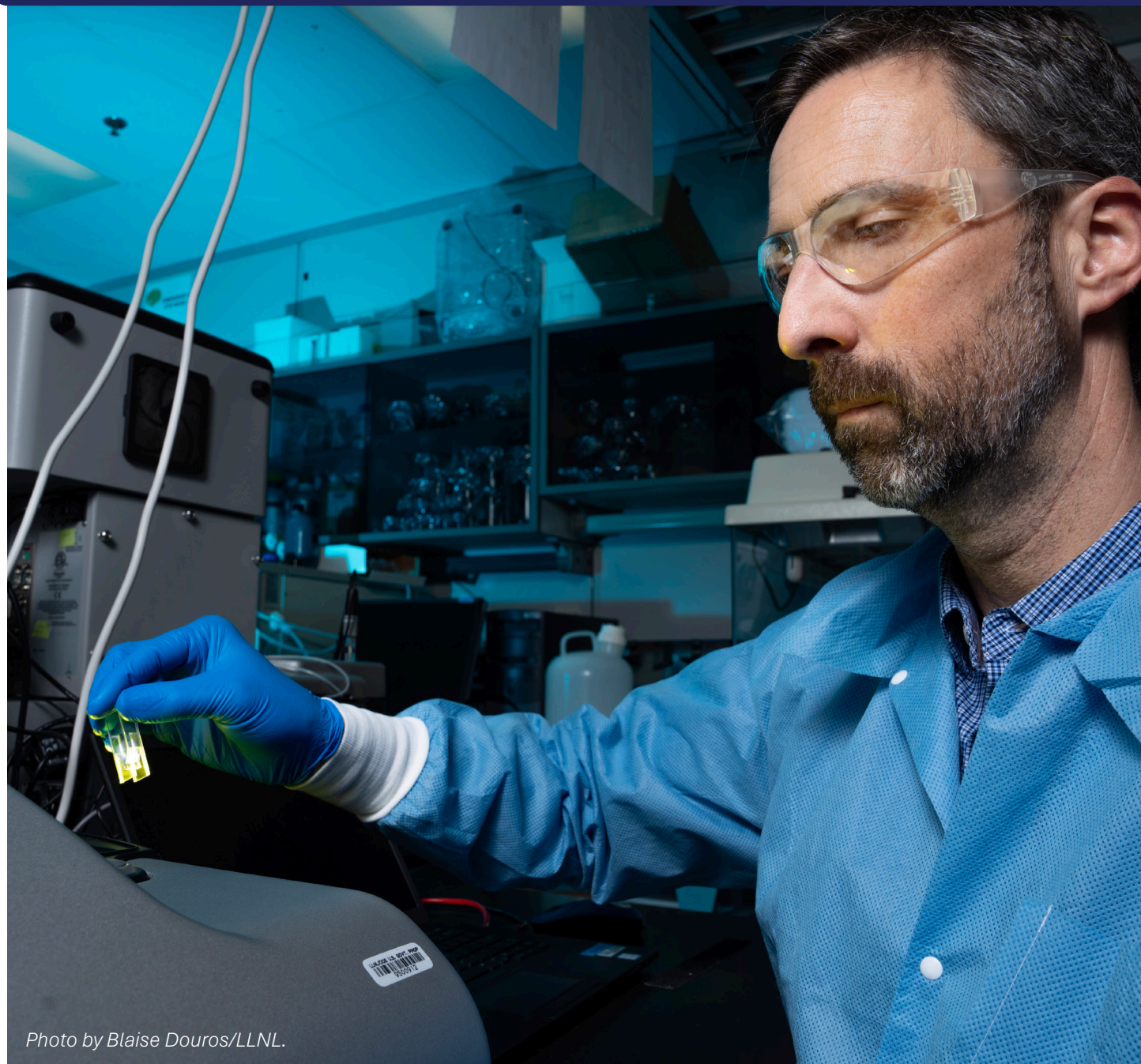

Graphic by Adam Connell/LLNL.

EVOQ THERAPEUTICS:

Transforming Autoimmune Care with Nanolipoprotein Technology from LLNL

Photo by Blaise Douros/LLNL.

Recognized in FY24 with two technology transfer awards (Federal Laboratory Consortium (FLC) and Technology Transfer Working Group (TTWG); see page 36), Lawrence Livermore National Laboratory (LLNL)-licensee EVOQ Therapeutics has been able to use the Laboratory's biomedical technology called nanolipoprotein particles (NLPs) — which can deliver vaccines and drugs inside the cells of the human body — for lymph node-targeted delivery of specific antigens for autoimmune diseases such as type 1 diabetes, rheumatoid arthritis, celiac disease and others.

The biomedical company has developed a technology for autoimmune disease vaccines shown to be up to 30 times more effective at delivering antigens to the lymph nodes compared to antigens not using the NLP technology.

It is believed that people afflicted with autoimmune diseases may someday receive help through treatments using the NLPs from EVOQ Therapeutics and its collaborations with two major pharmaceutical companies and the Juvenile Diabetes Research Foundation. Innovation and Partnerships Office (IPO) Business Development Executive Yash Vaishnav negotiated the 2017 license agreement with EVOQ Therapeutics and continues to manage the development of the IP portfolio in this area as well as related industry partnerships. The IPO Agreement Specialist is currently Samantha Madru.

PRECISION NEUROSCIENCE:

Advancing Neural Implant Technology with LLNL

In February 2024, Lawrence Livermore National Laboratory (LLNL) and Precision Neuroscience Corporation announced a three-year collaboration to advance the technology of neural implants for patients suffering from a variety of neurological disorders, including stroke, spinal cord injury and neurodegenerative diseases such as Lou Gehrig's disease.

Under the Cooperative Research and Development Agreement (CRADA), LLNL scientists and engineers will work with Precision to develop future versions of the company's neural implant — a thin-film microelectrode array called the Layer 7 Cortical Interface — with enhanced longevity. The implant is designed to allow users to operate computer systems through thought, which could benefit patients who have lost motor coordination or the ability to speak.

The project will leverage LLNL's extensive background in developing flexible, thin-film multielectrode neural implants, as well as its Biomedical Foundry infrastructure, which provides a dedicated micro-fabrication facility with a regulatory-compliant quality management system (QMS) for prototype medical device manufacturing. Precision intends to transfer the techniques developed under the CRADA to its Addison, Texas-based manufacturing subsidiary, Precision BioMEMS, for production. The CRADA was negotiated by Innovation and Partnerships Office (IPO) Business Development Executive Yash Vaishnav, and the IPO Agreement Specialist involved was Samantha Madru.
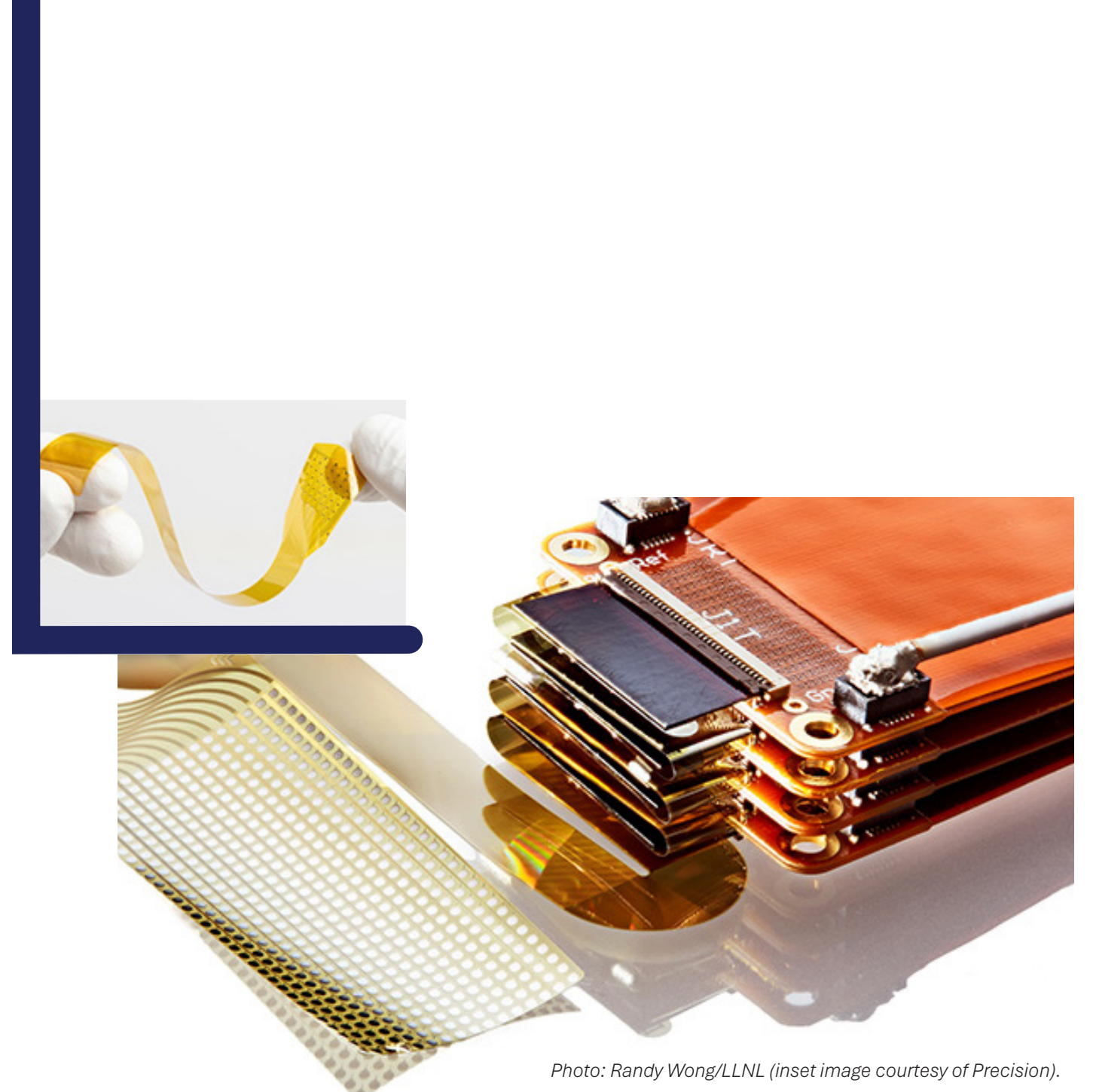

Photo: Randy Wong/LLNL (inset image courtesy of Precision).

GEOSTARE SV2:

Groundbreaking Collaboration between Terran Orbital and LLNL

In May 2024, Terran Orbital celebrated the third anniversary of its successful GEOStare SV2 mission, which launched from NASA's Kennedy Space Center and has surpassed expectations — delivering exceptional results for commercial satellite imagery.

The space vehicle integrates Lawrence Livermore National Laboratory's (LLNL's) Monolithic Telescope (MonoTele) technology with Terran Orbital's expertise producing high-reliability space vehicles. Developed through a four-year, $6 million Cooperative Research & Development Agreement (CRADA), this mission demonstrates the power of collaboration in advancing compact satellites for commercial applications.

Beyond capturing over 60,000 Earth images and 94,000 deep space images, GEOStare SV2 has served as a valuable testbed for Terran Orbital. This ongoing mission has also fostered collaboration within the industry, paving the way for future partnerships.

The Terran Orbital CRADA was originally negotiated by Innovation and Partnerships Office Business Development Executive (BDE) Dave Dawes (retired) with Business Development Associate Alicera Aubel. It is currently managed by BDE Clarence Cannon.

Image credit: Terran Orbital.

IFE-STARFIRE HUB:

LLNL and Longview Partner to Advance Fusion Power

Rounding out the fiscal year, Longview Fusion Energy Systems and Lawrence Livermore National Laboratory (LLNL) announced a new Cooperative Research & Development Agreement (CRADA) focused on applied fusion.

Building upon the repeated demonstrations of fusion energy gain at LLNL's National Ignition Facility (NIF), Longview and Livermore will combine their laser fusion science and technology expertise to develop a comprehensive performance and economic model tailored to optimize the Longview fusion power plant designs. This partnership establishes critical requirements for Longview's power plant's fusion technology systems and facilities and develops the technology roadmap to mature these systems.

The collaboration complements a broader set of Department of Energy (DOE) programs involving Longview and Livermore, including the LLNL-led Inertial Fusion Energy (IFE) Science and Technology Accelerated Research for Fusion Innovation and Reactor Engineering (STARFIRE) Hub established in December 2023.

The IFE-STARFIRE hub will accelerate demonstration of high-gain target designs, target manufacturing and engagement and diode-pumped solid state laser technologies, with development of these technologies guided through an IFE-plant modeling framework. The IFE-STARFIRE hub project will also begin developing the workforce of the future for IFE through partnerships with leading universities and innovative new curriculum development and implementation.

The Longview CRADA was originally negotiated by Innovation and Partnerships Office Business Development Executive (BDE) Genaro Mempin (retired) with Business Development Associate Alicera Aubel. It is currently managed by BDE Alex Hess.

Image Credit: Brian Chavez/LLNL.

LOOKING FORWARD

FINAL THOUGHTS

As we reflect on this year of transformation, I am incredibly proud of the strides our team has made in driving growth, innovation and resilience. FY24 was marked by bold decisions and a commitment to evolving our business development strategies to ensure we are not just adapting to change, but shaping it.

Together, we've strengthened our foundation, embraced new opportunities and positioned ourselves for sustainable success.

This progress is a testament to the dedication and expertise of our team, whose efforts have propelled us forward while honoring the legacy of what came before.

As we look ahead to FY25 and beyond, we are poised to build on this momentum by leveraging the lessons learned and the capabilities developed to seize new opportunities and deliver even greater value to our stakeholders.

The future is bright, and I'm confident that our collective vision and drive will lead us to even greater achievements. Thank you for your partnership and trust.

MATTHEW GARRETT, IPO DIRECTOR

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