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KATE BRODERICK INOVIO Pharmaceuticals

AMY BUTLER Thermo Fisher Scientific JENNIFER CASE

New Leaf Biofuel





ATHENA JAMI Countouriotis, M.D. Debrango-Palumbo Turning Point Therapeutics

Foundation Medicine Inc.

RACHEL FORD HUTMAN Ford Hutman Media

PAMELA GARDNER Biotech Vendor Services, Inc.

LISA HAILE DLA Piper

SUSIE HARBORTH Breakthrough Properties





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CHRISTINA TOWERS, PHD Salk Institute for Biological Studies



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Weerasinghe



SAMANTHA WYNNS The Great Basin Institute









LORNA BRIDDICK Managing Partner

Lorna Briddick is a managing partner of Brizzey LLC. She has 19 years of experience in leading clinical supply chain business process design, optimization, and training. She started her career as a consultant to Pfizer and led the optimization of their clinical supply chain. She held operational roles of increasing influence, where she served as the Schering Plough/Merck Global Clinical Supply Regional Lead to Latin America. Along with operational roles, Briddick led numerous initiatives to optimize clinical supply chain processes, implement new technology/tools, and train new teams. She left Merck as a director in 2013 and co-founded Brizzey LLC with two other partners, where she has served as a managing partner for 7 years helping more than 45 small to medium size companies with clinical supply chain strategies and operational support. She has also served Global Clinical Supply Group Planning Committee and is a regular presenter on current topics affecting the industry.





Dr. Kate Broderick, INOVIO's Senior Vice President of Research and Development, works in INOVIO's research labs in San Diego, focusing on the development and enhanced delivery of a range of DNA medicines designed to prevent often deadly infectious diseases and cancers. She has authored and co-authored 60+ peer-reviewed articles. Her team regularly publishes and presents their findings in leading scientific publications and at conferences worldwide. She is a co-inventor on multiple patents related to DNA vaccine delivery and serves as a principal investigator on grants, awards, and contracts from leading government agencies and not-for-profit organizations. Dr. Broderick has helped the development of novel prototypes and designs of INOVIO's proprietary smart device CELLECTRA, which delivers the company's DNA medicines directly into cells in the body. In 2018, Dr. Broderick was named Business Woman of the Year by San Diego Business Journal. In 2021, she was named one of In Vivo's Rising Leaders.



Amy K. Butler serves as the Division President of Biosciences at Thermo Fisher Scientific. Prior to her current role, she led the Cell Biology business, including efforts to support Cell and Gene Therapy customers. Butler has held multiple general management and functional leadership roles at Thermo Fisher, including overseeing Marketing & e-Business, Global Customer Care, and the Gene Expression Profiling business unit. She joined Invitrogen, then Life Technologies, and now part of Thermo Fisher, in 2004.

Prior to joining Invitrogen, Butler served as an engagement manager with McKinsey & Co. where she worked predominantly with large pharmaceutical companies on R&D, sales and marketing strategies. Prior to that, she was a developmental neuroscientist at the Salk Institute. She obtained her doctorate in neuroscience from the University of Pennsylvania. Additionally, she sits on the Alliance for Regenerative Medicine Board of Directors.



WOMEN OF INFLUENCE IN LIFE SCIENCES 2021

Congratulations, Andrea, Ruth, and Evelyne!

Each of you influences Life Science and Biotech with unique and incredible expertise. Your integrity and grit are an asset to our team.











RACHEL FORD HUTMAN CEO and Founder, Ford Hutman Media

Rachel Ford Hutman is a media relations specialist and global healthcare industry connector. In 2020, she founded Ford Hutman Media, a global communications firm that specializes in media relations, thought leadership and executive visibility to life science companies in the U.S. and Europe. The firm has worked with Medtronic, Illumina, Komodo Health, HLM Venture Funds, Blueprint Medicines, Section 32 and Pacific Biosciences to name a few. Starting her career as a reporter at The North County Times, she excels at working with the media to bring health stories to life while still making them accessible to stakeholders.

Named PRSA's PR Professional of the Year in 2011, Power Woman of San Diego 2020, and a Distinguished Woman of San Diego in 2021, she has built a reputation for her positive energy, creativity and humor. She received her MA in communications at SDSU and her BA in History from UMBC.

Hutman



In 2003, Pamela Gardner, founded Biotech Vendor Services, Inc. (BVS) to assist bio-pharma companies and research institutes to streamline their vendor management and supply chain through customized scientific, clinical and manufacturing, and supplier diversity events. BVS has held over 2,500 events and gained an impressive roster of over 1,000+ nationwide clients that include many of the top bio-pharma companies and suppliers.

She has created a business model which allows her to further integrate her "why" to empower women in science into her existing business. Having been in the science industry for 18 years she truly understands the issues that women are facing in science. Through her extensive network and loyal followers, she has been able to catapult thought leadership on a nationwide scale to people within the science industry. In 2019, she was awarded the esteemed Athena Pinnacle Award in recognition for her achievements in making a significant difference in the lives of women in STEM.



LISA HAILE Partner

Dr. Lisa Haile has been a patent attorney for more than 30 years, representing eight Nobel Prize winners during her career. With a Ph.D. in Microbiology from Georgetown University Medical School and three-years of post-doctoral studies focused on the biology of cancer at the Sanford Burnham Medical Research Institute, Dr. Haile assists clients with protecting life-saving diagnostics and therapeutics. Her technical experience includes molecular biology, immunology, cell biology, regenerative medicine, diagnostics, and therapeutics.

Dr. Haile has served on the board of San Diego-based Biocom, the life sciences industry professional and advocacy organization, for 15 years and in the role of General Counsel of Biocom for the past 10 years; serves as Chair of the Scientific Advisory Board for San Diego-based DNA-SEQ Alliance; and is past- President of the San Diego Intellectual Property Law Association and of Athena, a women's advocacy organization that fast tracks women in STEM through leadership development.



WOMEN OF INFLUENCE IN LIFE SCIENCE 2021

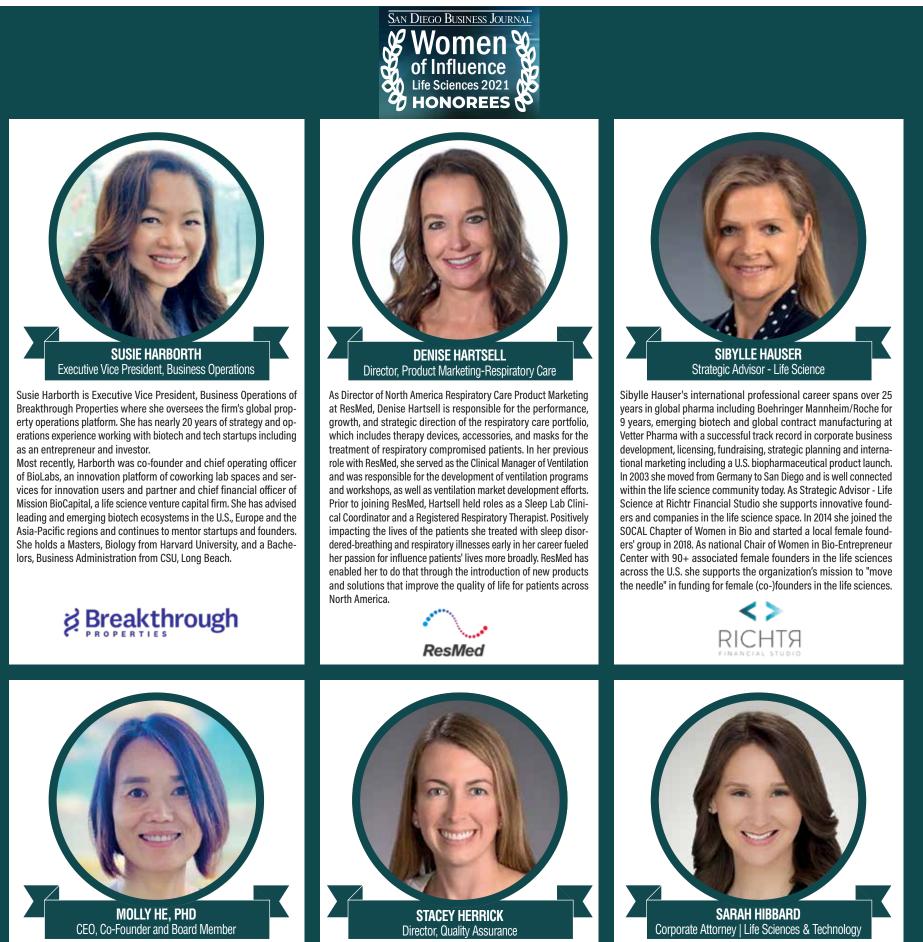


Congratulations to Jami DeBrango-Palumbo! As a strong female leader in the Life Sciences and Biotech industry for over 20 years, and with her passion for personalized healthcare, she has successfully paved a path for other aspiring women leaders in our industry. As the current Senior Vice President of US Operations and Client Services at Foundation Medicine, Jami strives to create a welcoming and innovative environment to help shape the future of cancer genomics. Her proud advocacy of servant leadership, as well her passion for DE&I have inspired her teams to bring their whole selves to work to transform cancer care.





For more information, visit: www.FoundationMedicine.com



Molly He, Ph.D. co-founded and serves as chief executive officer of Element Biosciences, a developer of a new and disruptive DNA sequencing platform. She has more than 20 years of experience in technology innovation and management in the biotechnology and healthcare industries. Before founding Element in 2017, she was a venture partner at Foresite Capital. She also held leadership roles at several genomics companies, including at Illumina where she was Senior Director of Scientific Research, responsible for Illumina's global protein reagent innovation and improvements, and for leading global scientific and technical teams. Prior to Illumina, she was the Head of Protein Sciences at Pacific Biosciences, where she was responsible for protein reagent development for their single-molecule real-time sequencing chemistry. She also spent several years as a scientist in the biopharmaceutical industry during her early career. She holds a Ph.D. from the University of California, Los Angeles in protein biophysics.







Stacey Herrick is a seasoned quality professional with more than 17 years of scientific and quality experience in the pharmaceutical sector. Recognized for demonstrating an aptitude for leading quality teams, as well as for creating robust processes to aid with current regulations and site strategies, she has a history of contributing directly to company growth and expansion throughout her career. Professional focal points include quality control testing, Good Manufacturing Practices (GMP) knowledge, auditing, documentation writing and approving, training, and client relations. Delivering results in these areas of expertise requires the utilization of effective communication skills, business acumen, operations analysis, project management, and resource management to support efficiency and maximum returns. Herrick graduated with a bachelor of science in Pharmacological Chemistry from the University of California, San Diego.



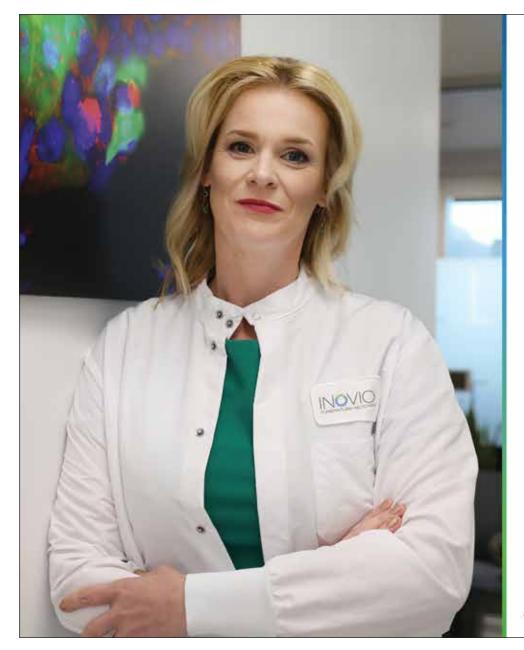


Snell & Wilmer Committed to being your perfect fit.* Congratulations, Saundra Pelletier, CEO Evofem Biosciences for being recognized as a 2021 Women of Influence in Life Sciences



Thank you Saundra for your leadership. As one of the most dynamic women in today's biotech industry, you are breaking the "hormone glass ceiling" with the introduction of Phexxi[®] which addresses the unmet need for millions of women. You are a passionate advocate for women's empowerment and equality, driving real positive change in the world.





Congratulations Kate Broderick, Ph.D.



INOVIO celebrates and congratulates **Dr. Kate Broderick**, our brilliant Senior Vice President of R&D, for being recognized as one of San Diego's 2021 Women of Influence in Life Sciences.

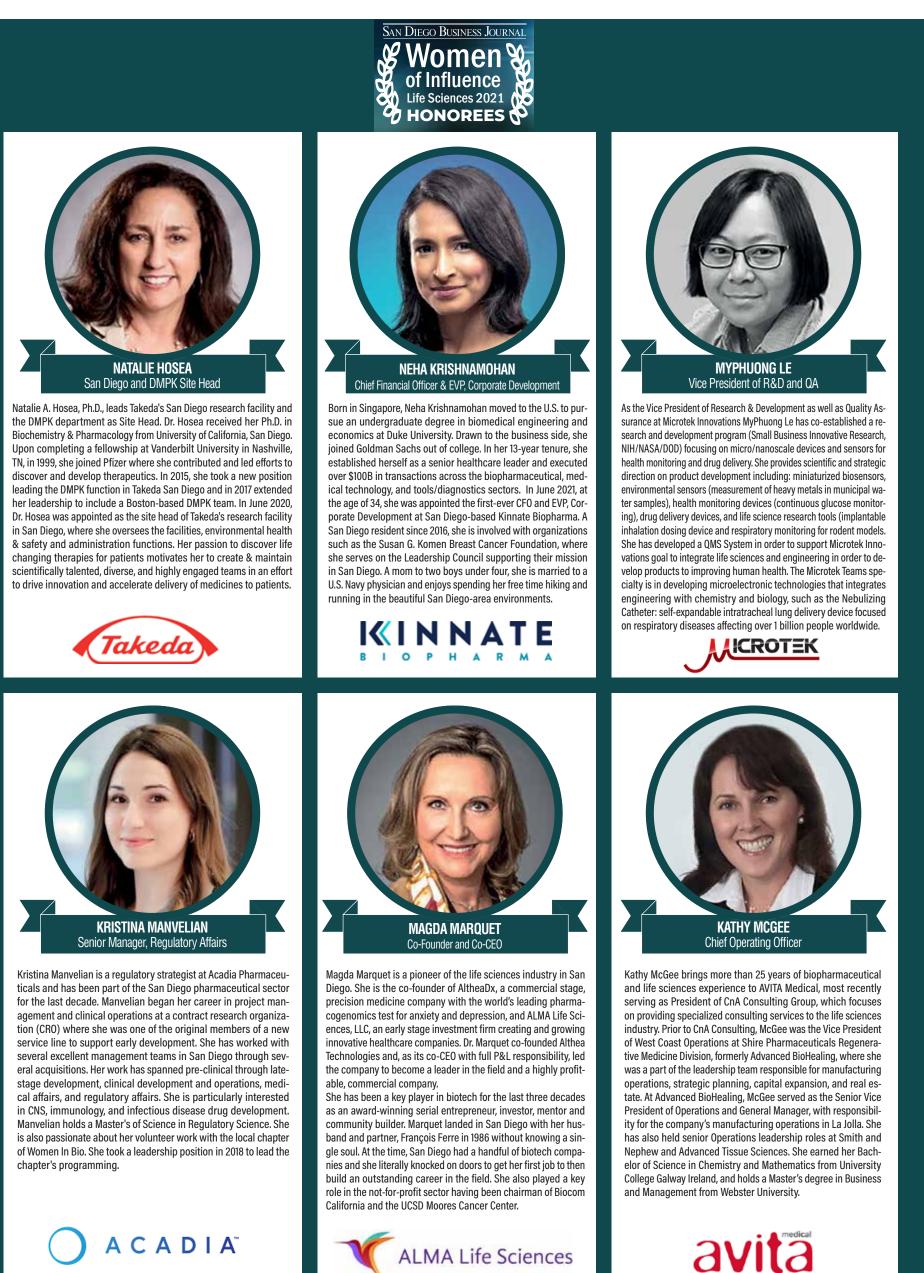
Dr. Broderick pioneers the development of DNA medicines, champions women in science, and supports the San Diego community. Her unrelenting commitment to excellence makes an immeasurable impact on the global life sciences industry and the patients we serve.

#DNAMedicine inovio.com

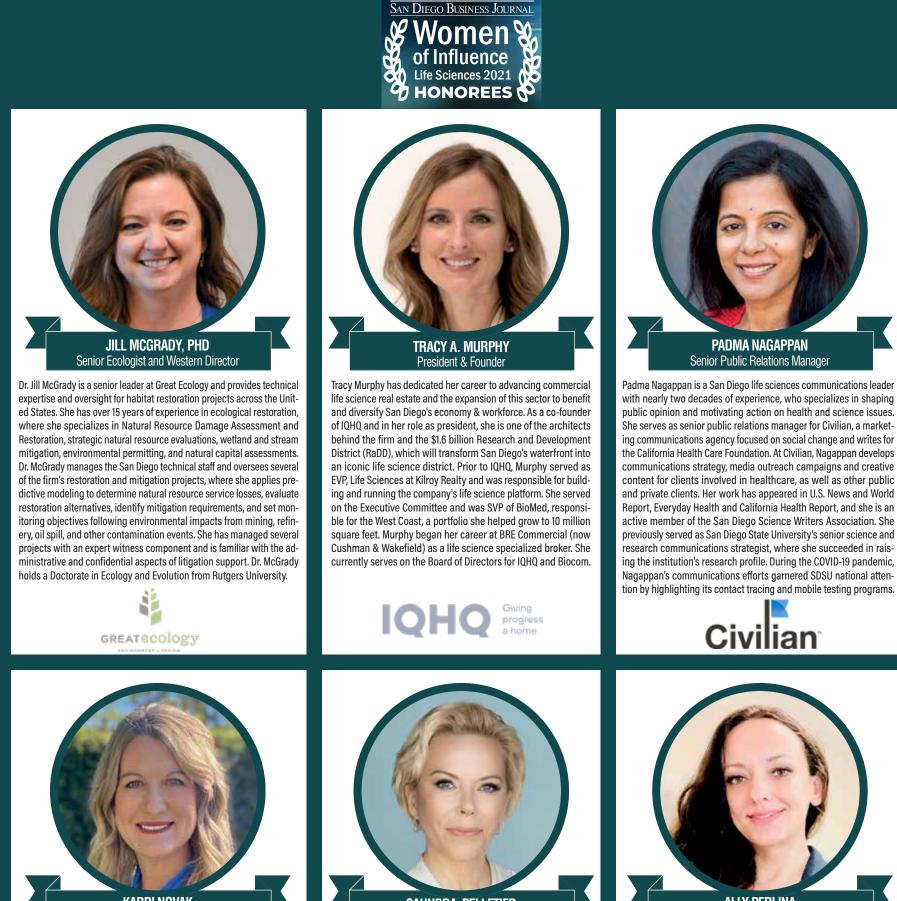


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AUGUST 30, 2021







KARRI NOVAK Vice President

Karri Novak is the Vice President of Project Development for the West Region at Suffolk, where she leads business acquisition, project oversight and client relationship management for significant construction projects in San Diego. As a 25-year construction veteran, she provides executive oversight of Suffolk's expansion into San Diego's life science sector by leveraging her experience on technical, institutional projects and leading teams with a depth of life science experience. Her innovative use of technology has played a critical role in delivering sophisticated facilities throughout her career, including Genentech Hall at UCSF, UCI McGaugh Hall Renovation, and Interdisciplinary Sciences at SDSU.

Novak's expertise builds on Suffolk's 38-year history of constructing Life Sciences projects for some of the most renowned institutions in the industry. Suffolk's experience building state-of-the-art laboratories and research spaces and working in sensitive environments is unparalleled, with specialized teams that have skillfully delivered projects under the most challenging conditions.



As chief executive officer, president and executive director of Evofem Biosciences, Inc., Saundra Pelletier has been responsible for the company's rapid growth and evolution, including Evofem's transition to the public market in January 2018 and multiple equity financing rounds that have raised \$491 million. Under her leadership, Evofem launched Phexxi, the first and only FDA-approved non-hormonal, on-demand contraceptive in September 2020. She has also advanced Evofem's investigational product candidate, EV0100, into a Phase 3 clinical trial for the prevention of both chlamvdia and gonorrhea in women, for which there are no prescription products available. The company expects to report top-line data from the EVOGUARD trial in mid-2022. Pelletier is a force of energy that blends substance and excitement with straight talk and refreshing opinions.





Ally Perlina is a visionary innovator who translates complex data into scalable products. As Chief Science Officer for CureMatch. Inc., a San Diego company delivering groundbreaking artificial intelligence (AI) technology for clinical decision support, Perlina leads the clinical, biological, data science and product development teams. With her leadership, CureMatch empowers oncologists to address the immense complexity behind cancer genomics so that they can select therapies that are uniquely matched to the molecular profile of the individual patient's tumor - supporting better outcomes.

Perlina's experience also includes leadership roles with Viome and Human Longevity; SBP Medical Discovery Institute, Quest Diagnostics; and Thomson Reuters where she worked with pharmaceutical companies. She researched clinical genomics of brain tumors at UC-LA's Ph.D. program in Human Genetics, where she also earned her M.S. degree. She received her B.S. in Biochemistry and Cell Biology from UCSD. She is a published author and inventor on several patents.









As Chief Operating Officer at Biosero, Andrea Salazar is responsible for developing and maintaining a seamless experience among its customers and numerous business partners. She helped grow the company from four employees in 2011 to 65 employees worldwide. Salazar is also responsible for designing Biosero's pricing and sales commission structures, which contributed to a double-digit increase in profitability. She has been instrumental in launching the Biosero "WHY" project, an annual initiative that provides monetary awards to charities selected by Biosero employees. Salazar is also the treasurer for the local chapter of Girls, Inc.

Before joining Biosero in 2011, Salazar served as a subcontracts manager for The National Aeronautics and Space Administration's (NASA) Jet Propulsion Laboratory (JPL). Over ten years, she managed and negotiated contracts for various Mars Projects. Salazar earned a bachelor's degree in accounting from California State Polytechnic, Pomona.



Noel Sauer is currently VP, Research at Cibus, where she is responsible for leading the Research and Development team to enable the development of non-transgenic traits in commercially relevant crops through advancements in the field of precision plant breeding. In overseeing the company's technology development, she has been instrumental in developing the company's research strategy which has led to solutions to globally feed more people in an ever-changing environment. This is important because by the year 2050, the United Nations estimates that the human population will reach 9.7 billion. Add the negative effects of climate change on plant growth and we are on the cusp of a crisis of epic proportions.

Sauer was a Postdoctoral Fellow studying host-pathogen interactions at Massachusetts General Hospital, Harvard Medical School. She received a Ph.D. in Microbiology and Molecular Genetics from Harvard University and a Bachelor's degree with Honors in Biological Sciences from the University of Southern California.





Dr. Christina Towers is an award-winning researcher at the Salk Institute for Biological Studies' renowned NCI-designated Cancer Center as an assistant professor. Towers examines how cancer cells recycle both their own nutrients and the power-generating structures called mitochondria in order to survive. By using a combination of gene-editing techniques, light-based genetic manipulation (optogenetics), three-dimensional miniature organs ("organoids"), and detailed imaging, she aims to identify the best ways to target the recycling pathways that tumors use to survive. Her research aims to lead to new targeted cancer therapies that can improve patient outcomes and survival. In partnership with Salk, BioMed Realty provided a one-million-dollar grant to support Dr. Towers' recruitment and research here in San Diego A few of her most recent professional awards and honors include: Pathway to Independence Award (K99/R00), 2020-2025; The Cancer League of Colorado Pilot Award, 2020-2021; ACLS Leading Edge Fellow, 2020; American Cancer Society Postdoctoral Fellowship, 2019-2021.







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■ By ADAM LOHR, JUSTIN CULBERTSON, STEVE KEMLER, DAVID STUART, RSM US LLP

The following is an excerpt from the summer issue of The Real Economy: Industry Outlook for life sciences. For more insights, read the complete report.

Emerging from the crucible and leading the pack

Eighteen months after the start of the pandemic, clinical trial starts have rebounded and now exceed historic levels, according to data analyzed from Scientist.com's Trial Insights database.

The data suggests an overall recovery across the majority of indications, but much like what we have seen in the broader economic recovery, some pockets of the therapeutic landscape are outperforming their peers. Oncology, for example, had maintained its long-term pace of new trial starts, with the total number increasing by 8% from 2019 to 2020. We expect another strong year in 2021 as the life sciences industry continues to shift focus to oncology and immunotherapies. This is compared to indications with lower mortality risk, such as infections, which saw a 17% decrease in total trial starts from 2019 to 2020.

New trial starts are a bellwether for industry focus in the long term, and latestage trials provide insight into what will happen in the near term.

According to the National Institutes of Health's ClinicalTrials.gov database, COVID-19 trials made up 13% of industry-funded phase 3 trials in 2020. That number dropped to 8% for the first five months of 2021. Between September 2020 and June 2021, the indications with the greatest proportion of trials moving into phases 3 and 4 are oncology, pathological conditions, cardiovascular diseases, and infections, according to Trial Insights data.

Medical devices trials set historic pace

During 2020, industry-funded medical devices trial starts decreased 7% year over year, and fell below historical trends. However, 2021 looks to be the sector's strongest year ever in terms of new trial starts, with a 114% yearover-year increase for the period January through May.

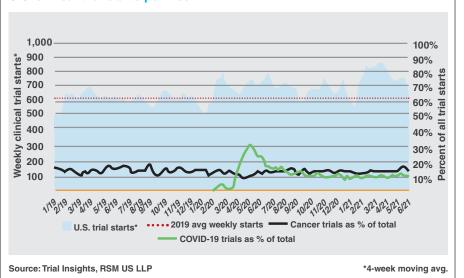
We acknowledge that the increase in the first five months of 2021 likely includes trials that were delayed because of the pandemic, but the breakout pace as well as the apparent public market interest in medical devices and supplies companies indicate a positive outlook for the sector. Additionally, we've noted several portions of the medical devices space, specifically surgical devices, are surging with new investor interest. These capital market indicators, as well as recent Supreme Court decisions to uphold the Affordable Care Act, indicate that growth in medical devices is far from transitory.

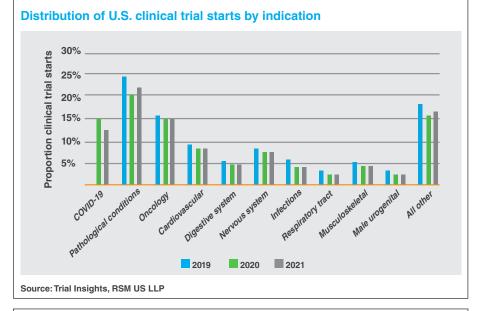
Decentralization – A lasting impact?

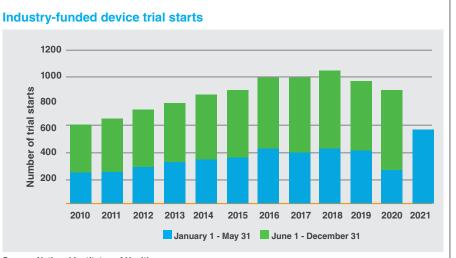
One of the greatest challenges the pandemic presented for the life sciences industry was the ability to conduct clinical trials, which were frequently forced to switch from an on-site to

Life sciences industry outlook What's on the horizon for clinical trials?

U.S. clinical trial starts per week

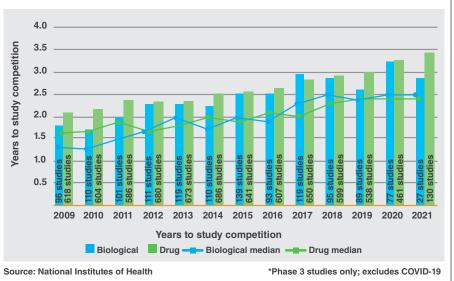






Source: National Institutes of Health





highly remote model. Fortunately, the industry had already been exploring decentralized trial models and was able to quickly adapt to the remote environment and absorb a surge of COVID-19focused new trial starts. As businesses and individuals return to the physical economy, the life sciences industry plans to retain many of the decentralized activities it has adopted over the last 18 months. The long-term economic and public health impacts of this shift remain unclear, but recent investments and deal activity suggest this shift in business models will not be temporary.

In February 2021, ICON plc announced plans for the \$12 billion acquisition of PRA Health Sciences, a merger predicated on synergies between the organizations, including PRA's robust, decentralized trial platform. According to management meeting highlights published by Mizuho Securities LLC, ICON expects 80% to 90% of its future trials will require some form of remote monitoring.

This sentiment toward investing heavilv in decentralized trial models is consistent across the industry. In March 2021, Syneos Health announced its partnership with Science 37, a decentralized trial platform provider, and in April 2021, Syneos Health announced a separate partnership with Medable, another decentralized trial platform provider and direct competitor to Science 37. In its Q1 2021 earnings call, IQVIA stated that it is expanding therapeutic areas in decentralized trials and had recruited almost 170,000 patients using its decentralized trial solution. In its fiscal year 2020 earnings call, PPD took a more measured stance, stating that remote monitoring will be utilized more frequently than prior to the pandemic but wasn't expected to fully replace onsite monitoring.

The widespread adoption of decentralized trials is clear; however, the economic and efficiency trade-offs need to be more thoroughly vetted. Fully virtual trials have a completely different cost structure, according to PPD in a Q1 2021 earnings call. While number of sites and travel to those sites are reduced, there is an increase in point-to-point solutions to serve patients in their homes as well as a much more decentralized supply chain. Though any increased costs may be offset by future savings, more promising is the potential to increase the efficiency and success rates of clinical trials, thus reducing the development timeline and overall cost of new drugs.

As a result of increased FDA regulation and complexity in clinical trials, we noted that the average years to completion for industry-funded phase 3 studies has been steadily trending upward. We specifically excluded COVID-19 trials given unique regulatory conditions that are unlikely to persist across all indications on a go-forward basis. We believe this trend highlights the opportunity and importance of driving efficiencies in the clinical trials, especially as new therapies become more targeted on smaller populations, and more middle market companies develop and launch drugs on their own.

For more life sciences insights or if you have questions about the topics discussed in this article, please visit rsmus.com. ■