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The Biopharma A List: Taking The Pulse Of Newco Creation

by Amanda Micklus

The market for new company creation in the biopharma sector remains healthy and poised to continue fostering the establishment of start-ups, based on a new *In Vivo* study of the strong initial investments that pharma and biotech companies receive.

As the major introductory fundraise for start-ups, Series A financings represent the first-time companies raise substantial equity from venture investors. Prior to the Series A, new firms may raise funds from angel backers through seed rounds, but these are typically smaller in value.

Because Series As are a major milestone for companies just launching, they make an excellent proxy for new company formation, and tracking them over time enables the industry to take a pulse on the overall market of newcos in the biopharma space and acceptance by venture shareholders to place bets on novel technologies.

In general, biopharma Series A financings represent about one-third of all venture financings – seed rounds through mezzanine, which are financings typically done just before an initial public offering. The annual proportion, however, of these first-time financings has been slightly decreasing since 2018, from a high of 39%, to 34% in 2021. This does not necessarily indicate that new company creation is slowing down because venture round volume has been on the rise at the same time, and so has the absolute number of Series A rounds.

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Volume And Value Of Series A Financings Rising Over 2017–21

Over 2017–21, the volume and aggregate value of Series A financings in the biopharma sector has been trending upward, a positive sign for new company creation. In 2017, 117 Series As were

done, and that has nearly doubled to 200 in 2021. The aggregate raised by these start-ups through A rounds tripled, from \$3.2bn in 2017 to \$9.6bn in 2021.

Within the five-year timeframe, there was a dip in total Series As in 2019, the only year to see less than 100 such deals done. Since then, there has been a ramp up and steady increase despite the following two years being in the thick of the COVID-19 pandemic. Despite the uncertainty caused by the pandemic, Series A investors have forged ahead with investments in biotech, showing their willingness to still fund new company formation during a volatile environment.

Both private and public investors have recognized the biopharma industry's role in meeting the challenge of developing therapeutics and vaccines for COVID-19, and as a result, the biopharma industry in general has realized overall strong continued investment.

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Average Round Size Has Grown Over Five-Year Period

Start-ups, on average, are raising more money now in a typical Series A round than in the past. In 2021, the average Series A fundraise was \$50.3m, a 73% increase over the \$29.2m average round size five years earlier. There was a substantial jump from 2017 to 2018, when the average reached \$54.5m. Since then, the mean round value has hovered just above or below \$50m.

Over the five-year period, several outliers have featured initial fundraises in the multi-hundred-millions. [*Sana Biotechnology, Inc.*](#) raised \$700m in 2020, the largest Series A financing during 2017–21. [*\[See Deal\]*](#) Working with technology licensed from Harvard University, UCSF, and Washington University, Sana is developing in vivo fusosomes, a novel type of delivery vehicle for cell-specific delivery, and ex vivo hypoimmune allogeneic cell therapies, with a focus across oncology, diabetes, CNS, cardiovascular, and genetic diseases. Less than a year after its Series A round, Sana completed a \$628m IPO. (Also see "[*Finance Watch: Sana Reveals Cash Haul Of \\$700m In Under Two Years*](#)" - Scrip, 23 Jun, 2020.)

Seven companies in 2018 each raised over \$200m in their Series A financings, led by a \$438m Series A-6 round from [*Biosplice Therapeutics, Inc.*](#) (formerly named Sanumed). By targeting the CLK/DYRK family of kinases, Biosplice aims to address dysregulated alternative splicing that leads to developmental diseases, cancers, and tissue degeneration. Its lead candidate lorecivivint is in Phase III trials for osteoarthritis of the knee.

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In 2017, just over a third of the volume of Series A rounds were in the \$10–25m range. But since 2018, more companies are raising bigger amounts: The largest proportion of Series A financings have fallen between \$25–50m. Rounds less than \$10m in value have shrunk as a percentage of the total, reaching a five-year low in 2021. Instead, the industry has seen an increase in the proportion of Series As worth >\$50–75m.

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2021 Series A Financings In Focus

In 2021, the top 10 Series A companies by value together raised \$2.2bn to fund new developments and technologies across a wide range of areas. The leading companies work in several therapy areas, including oncology, inflammation, neurology, cardio-metabolic, while technologies represented in the top 10 cover gene therapy, engineered cell therapy, and drug discovery platforms.

The top three Series A fundraisers of 2021 – [Neumora Therapeutics, Inc.](#), [AvenCell Therapeutics Inc.](#), and [Centessa Pharmaceuticals plc](#) – each reflect exciting new areas for biotech start-up company creation that have attracted interest from some of the biggest VC names in the industry.

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Boosted By The Year's Biggest Series A Round And An Amgen Deal, Neuroma Is Addressing Brain Diseases

Neumora's \$400m, Arch Venture Partners-led A round announced in October 2021 was the largest of the year and also the third-highest Series A financing during the five-year 2017–21 time period. [\[See Deal\]](#) Neumora is starting off operations with a high-profile partner in [Amgen, Inc.](#), which through its deCODE genetics subsidiary will be applying Neumora's precision neuroscience platform to human genetic data. In addition to the \$400m in VC financing, Neumora also received a \$100m equity investment from Amgen as part of their alliance. (Also see "[Neumora Launches With \\$500m To Advance Personalized Neuroscience Drugs](#)" - Scrip, 7 Oct, 2021.)

Understanding that neurodegenerative diseases are extremely heterogeneous, Neumora has created a platform with two main components: Data Biopsy Signatures that map out mechanisms driving brain diseases, and Precisions Phenotypes, which define clinically relevant characteristics of distinct patient subtypes. The goal is to produce targeted therapies for brain diseases, and Neumora is launching with a pipeline containing eight preclinical and clinical candidates for various conditions including sleep disorders, anxiety, and major depression in anhedonia.

Avencell Will Pursue Allogeneic Cell Therapies Using Intellia And Cellex Technologies

CAR-T cell therapy start-up AvenCell Therapeutics Inc. was formed in 2021 by [Intellia Therapeutics, Inc.](#) and Cellex Cell Professionals (parent entity of cell therapy company GEMoAB) and funded with a \$250m commitment from funds associated with Blackstone Life Sciences in the second-highest Series A of 2021. [\[See Deal\]](#) Ownership of the new company is split evenly among Intellia, Cellex, and [Blackstone Group, Inc.](#), each which hold 33%. (Also see "[Intellia, Cellex Team Up On New CAR-T Firm, Backed By Blackstone](#)" - Scrip, 22 Jun, 2021.)

GEMoAB (since renamed AvenCell Europe) is providing AvenCell with clinical-stage, switchable, universal CAR-T platforms that are designed to improve the therapeutic window of CAR-T cell therapies. Cellex is also contributing manufacturing capabilities. Meanwhile Intellia licensed AvenCell rights to develop and commercialize CRISPR genome-edited universal CAR-T cell therapies. Intellia also agreed to co-develop and co-fund allogeneic universal CAR-T cell therapies in immuno-oncology, plus additional allogeneic therapies. [\[See Deal\]](#) Besides oncology, AvenCell says it will also work in autoimmune diseases.

Centessa Pursues Asset-Centric Model, Starting With 11 Medicxi Portfolio Companies

Founded by Medicxi and funded with a \$250m oversubscribed Series A financing (the third-highest in 2021) that also included multiple blue-chip investors, Centessa Pharmaceuticals plc is operating as the parent company of nearly a dozen single-asset-focused start-ups. [\[See Deal\]](#) At launch, Centessa merged 11 private biotechs from Medicxi's portfolio that will be overseen by subject matter experts alongside Centessa's management team. (Also see "[Centessa 'Creates Pharma Pipeline Overnight' Using Novel R&D Approach](#)" - In Vivo, 3 Mar, 2021.) The Centessa model is not new; in recent years, other companies such as [BridgeBio Pharma, Inc.](#) and [Roivant Sciences](#) have also been established with the sole purpose of building asset-centric entities. This model was pioneered by [PureTech Health plc](#), founded in 2005 and now moving forward with 26 programs. (Also see "[Hub-And-Spoke Pioneer PureTech's Strategy Paying Off](#)" - Scrip, 10 Jun, 2021.)

The aim of the Centessa venture is to advance highly validated programs, either best- or first-in-class, through R&D, across multiple therapy areas including oncology, hematology, immunology,

inflammation, neuroscience, and rare diseases. Centessa's companies will leverage certain centralized functions, including manufacturing, regulatory, and operational expertise.

Since its formation, Centessa had already gone through some substantial changes to strengthen its financing position. Just four months after its Series A financing, the company completed a \$353m IPO in the US on Nasdaq, selling ADSs for \$20 apiece, at the high end of its proposed \$18–20 range. [\[See Deal\]](#) Later in 2021, Centessa secured an additional \$300m in debt financing from funds managed by Oberland Capital Management. [\[See Deal\]](#) And one of Centessa's portfolio companies, [Orexia Limited](#), teamed up with predictive modeling company Schrödinger to discover orexin-2 receptor-targeting targets for sleep disorders including narcolepsy. [\[See Deal\]](#)

Alexandria Venture Investments Was The Most Active Series A Investor In 2021

Alexandria Venture Investments, the strategic venture arm of the real estate investment trust Alexandria Real Estate Equities, participated in more biopharma Series A financings than any other investor in 2021. Established in 1996, Alexandria Venture Investments typically joins in seed or early venture financing rounds, and besides pharma and biotech, also owns shares in agrifoodtech, climate innovation, and technology start-ups.

In 2021, Alexandria's Series A investments covered a wide range of therapy areas and technologies. The VC took part in the aforementioned \$400m round for Neumora, a CNS start-up; it also invested in new firms working in oncology, immunology and inflammation, cell and gene therapies, gene editing, and therapeutic proteins.

Rounding out the top three biopharma Series A investors of 2021 were OrbiMed, which joined in 13 rounds, and RA Capital Management, a participant on 11 financings.

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Oncology Is The Focus Of The Biggest 2021 Series A Financings

Among the biggest Series A rounds of 2021 (those that were worth \$75m or more), the most active therapy areas of focus were oncology, immunology, and neurology. Just over half of the companies were involved in cancer research, and in aggregate, oncology accounted for an aggregate \$2bn in A rounds valued at \$75m or more.

Many of the cancer-focused companies are developing cell and gene therapies. Second behind AvenCell, [Walking Fish Therapeutics, Inc.](#) is another CGT developer involved in oncology that raised a big A round, closing at \$123m. Deriving its name from the regenerative abilities of the

axolotl salamander, Walking Fish is engineering B cells to produce factories of protein therapeutics to enhance antitumor immune response, as well as to treat autoimmune disease.

In addition to cell and gene therapy, other key technology areas that are being used by the biggest 2021 Series A fundraisers in oncology as well as immunology include RNA and radiopharmaceuticals. Investments in RNA over the past two years have been buoyed by the success of mRNA vaccines in prevention of COVID-19 and have attracted VC interest. [Aro Biotherapeutics Co.](#) closed on an \$88m Series A financing to support its Centryn platform of small, engineered proteins that can be conjugated to drug payloads, including oligonucleotides and siRNA. [\[See Deal\]](#) Aro believes this platform will improve delivery of therapies to diseased tissue.

Radiopharmaceuticals, or the targeting of radioactive drugs to specific organs and tissues, has garnered dealmaking dollars from some of the largest industry players, including [Novartis AG's](#) takeovers of [Advanced Accelerator Applications SA](#) and [Endocyte, Inc.](#) in 2017 and 2018, respectively. [\[See Deal\]](#) [Curie Therapeutics, Inc.](#) and [Ablaze Pharmaceuticals](#) raised a pair of \$75m Series A financings in 2021 to fund their radiopharmaceutical work in solid tumors. [\[See Deal\]](#)

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2022 Shows Encouraging Signs For New Company Creation

The environment in which to introduce new companies continues to be receptive. As of early June, at almost the half-way point in 2022, the biopharma industry has seen 72 Series A financings. This is only just over one-third of 2021's full-year volume, and the sector would need another 128 first-time rounds during the rest of 2022 to at least match 2021's total. Even so, at \$6.0bn in aggregate raised, 2022's dollar figure through early June already represents almost two-thirds of the total aggregate raised in all of 2021.

Many start-ups in 2022 have been well funded through Series A financings. About half of 2022's dollar volume is attributed to a record-breaking initial \$3bn financing of [Altos Labs](#), which is focusing on cellular rejuvenation programming to restore cell health and reverse disease, injury, and disabilities. [\[See Deal\]](#) (Also see "[Big Names Backers Give Altos \\$3bn To Pursue Cell Rejuvenation Science](#)" - Scrip, 19 Jan, 2022.)

In 2022, five other rounds have reached \$100m or higher. This excitement from investors in new technologies and their willingness to place the big bets will drive biotech forward.