Innovative academic startups 2015

Brady Huggett

Nature Biotechnology's selection of academic spinouts ranked by amount of venture capital raised (Table 1) continues to be dominated by US ventures (7 of 10). Greater access to capital explains why the United States recorded 67 ventures of all types securing A rounds

in 2015 (Fig. 1). Elsewhere in the world, the UK, China, Canada, Switzerland and France were the next most successful locations in terms of capitalization, with 10, 6, 5, 3 and 3 companies, respectively; the UK tops the list of average amount raised per round (Table 2).

Table 1 Top ten series A rounds in 2015 for innovative academic startups (as of December 15)

Company	Amount raised (millions); date; investors	Scientific founders	Other founders	Technology
Gritstone Oncology (Emeryville, CA, USA)	\$102; Oct. 20; Versant Ventures, The Column Group, Clarus Ventures, Frazier Healthcare, Redmile Group, Casdin Capital, Transformational Healthcare Opportunity	Tim Chan, Memorial Sloan Kettering Cancer Center; Mark Cobbold, Massachusetts General Hospital Cancer Center and Harvard Medical School; Graham Lord, King's College London; Naiyer Rizvi, Columbia University Medical Center; Jean-Charles Soria, South-Paris University	Andrew Allen, former CEO, Clovis Oncology	Identifying patient-derived, tumor-specific neoantigens for the development of individualized synthetic cancer vaccines
Neon Therapeutics (Cambridge, MA, USA)	\$55; Oct. 1; Third Rock Ventures, Clal Biotechnology Industries, Access Industries	James Allison, The University of Texas MD Anderson Cancer Center; Nir Hacohen, Broad Institute; Eric Lander, Broad Institute; Robert Schreiber, Washington University; Ton Schumacher, The Netherlands Cancer Institute; Catherine Wu, Dana-Farber Cancer Institute	Ed Fritsch, formerly at Dana-Farber Cancer Institute and the Broad Institute of MIT and Harvard	Identifying patient-derived, tumor-specific neoantigens for the development of individualized and off-the-shelf cancer vaccines
Decibel Therapeutics (Cambridge, MA, USA)	\$52; Oct. 15; Third Rock Ventures, SR One	M. Charles Liberman, Harvard Medical School; Gabriel Corfas, University of Michigan; Ulrich Müller, Scripps Research Institute; Albert Edge, Harvard Medical School	Not applicable	Novel therapies for hearing loss to modulate such targets as atonal homolog 1 (<i>Neuron</i> 77 , 58–69, 2013), repulsive guidance molecule A or its receptor, neogenin
Revolution Medicines (Redwood City, CA)	\$45; Feb. 4; Third Rock Ventures	Martin Burke, University of Illinois at Urbana-Champaign	Mark Goldsmith, Third Rock; David Pompliano, Third Rock	Automated chemical synthesis of <i>N</i> -methyliminodiacetic acid-boronate containing intermediates (<i>Science</i> 347 , 1121–1126, 2015) to generate amphotericin analogs with antifungal activity (<i>N. Chem. Biol.</i> 11 , 481–487, 2015)
Semma Therapeutics (Cambridge, MA, USA)	\$44; March 24; MPM Capital, Fidelity Biosciences, Arch Venture Partners, Medtronic	Doug Melton, Harvard; Felicia Pagliuca, previously a post-doctoral fellow in Melton's laboratory at Harvard	Robert Millman, MPM Capital; Jeff Imbaro, previously at Pursuit Solutions	Cell transplantation treatments for type 1 diabetes based on human pancreatic beta-like cells derived from ESC or iPSC (<i>Cell</i> 159 , 428–439, 2014)
Freeline Therapeutics (London)	\$37.7; Dec. 10; Syncona Partners	Amit Nathwani, University College London	Christian Groendahl, Syncona	Pseudotyped, self-complementary adenovirus-associated virus subtype 8 vector expressing codon-optimized human factor IX for patients with hemophilia B (<i>N. Engl. J. Med.</i> 365 , 2357–2365, 2011)
Metacrine (San Diego)	\$36; Aug. 5; Arch Venture Partners, EcoR1 Capital, Polaris Partners, venBio	Ronald Evans, Salk Institute; Michael Downes, Salk Institute	Rich Heyman, previously CEO of Seragon	Protein sensitizers for insulin in type 2 diabetes and modulators of farnesoid-activated receptors for non-alcoholic steatohepatitis and other metabolic diseases
TherAchon (Biot, France)	\$35; Sept. 30; OrbiMed Advisors, New Enterprise Associates, Inserm Transfert, Versant Ventures	Elvire Gouze, Inserm, University of Nice Sophia Antipolis	NA	Soluble human fibroblast growth factor (FGF) receptor 3 decoy prevents binding of FGF to mutant FGFR3 in achondroplasia (<i>Sci. Transl. Med.</i> 5 , 203ra124, 2013)
Kesios Therapeutics (London)	\$28.8; Dec. 2; Imperial Innovations Group, SV Life Sciences, Abingworth	Guido Franzoso, Imperial College London; Menotti Ruvo, Istituto di Biostrutture e Bioimmagini of CNR; Laura Tornatore, Imperial College London	NA	Preclinical compounds targeting GADD45b/MKK7 complex downstream of NFκB (<i>Cancer Cell</i> 26 , 495–508, 2014) for multiple myeloma
Neurona Therapeutics (S. San Francisco, CA, USA)	\$23.5; Dec. 1; The Column Group, Topspin Partners, private investors	Cory Nicholas, University of California, San Francisco (UCSF); Arnold Kriegstein, UCSF; Arturo Alvarez-Buylla, UCSF; John Rubenstein, UCSF	NA	Transplantation of human ESC- and iPSC-derived γ-aminobutyric acid-secreting (GABAergic) interneurons for epilepsy, neuropathic pain, spasticity and certain cognitive impairments and psychoses cells.

Source: BCIQ: BioCentury Online Intelligence; company materials.

Figure 1 Number of startups by country, 2015. A-2 rounds of undisclosed amounts left out. Source: BCIQ: BioCentury Online Intelligence.

Brady Huggett is business editor at Nature Biotechnology.

Table 2 Total and average series A rounds by country, 2015

Country (number of rounds)	Total amount raised (\$ millions)	Average raised per round (\$ millions)
UK (10)	516.2	51.6 ^a
Belgium (1)	31.2	31.2
US (67)	1,482.2	22.1
France (3)	51.6	17.2
China (6)	89	14.8
Canada (5)	72.6	14.5
Switzerland (3)	43	14.3
Germany (2)	27.1	13.5
Italy (1)	11.2	11.2
Taiwan (1)	8	8

A-2 rounds, and rounds of undisclosed amounts left out. Source: BCIQ: BioCentury Online Intelligence. ^aWithout outlier Immunocor, \$21.8.