

Academic partnerships 2014

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The number of disclosed partnerships for academic institutions declined significantly in 2014, down to 278 from 358 in 2013 (457 in 2012). Oncology deals again led the way (56), with neurology (35) and infectious disease (31) following. The large university systems (California and Texas,

respectively) were the most active schools (**Table 1**); the University of Oxford is tied with The Broad Institute with five deals each. AstraZeneca was again the most active pharma, forming 18 partnerships with academic and research institutions (**Fig. 1**), up from 14 in 2013.

Table 1 Academic partnerships 2014

University	Partners	Terms
University of California system (11 deals)	UC Irvine (UCI), Broad Institute of MIT and Harvard, Harvard Medical School, Icahn School of Medicine at Mount Sinai, National Institutes of Health (NIH), Oregon Health and Science University (OHSU)	\$64 million NIH grant to create the Library of Integrated Network-based Cellular Signatures, a database of human cellular responses. The data will be freely available.
	UCI, California Stem Cell, California Institute for Regenerative Medicine (CIRM)	\$4.5 million CIRM grant to develop human stem cell-derived transplantable 3D retinal tissue to treat incurable retinal diseases.
	University of California San Francisco (UCSF), Cornell University, Lawrence Livermore National Laboratory, New York University, US Department of Defense (DoD)	\$26 million, five-year grant from US DoD Defense Advanced Research Projects Agency (DARPA) to understand and heal disrupted brain circuitry to treat mental illnesses.
	University of California San Diego (UCSD), University of California Santa Cruz (UCSC), Illumina, Salk Institute, Scripps Research Institute, Stanford University, CIRM, J. Craig Venter Institute	\$40 million CIRM grant for a Center of Excellence in Stem Cell Genomics with Stanford and the Salk Institute as co-principal investigators, UCSD, Scripps, the J. Craig Venter Institute and Illumina as collaborators; UCSC handles data.
	UCSF, Quest Diagnostics	Develop precision medicine diagnostics in autism, oncology, neurology; women's health.
	UCSF, Advaxis	Combine Advaxis' immunotherapy platform with UCSF targets in prostate cancer.
	UCSF, Daiichi Sankyo	Focus on drugs and diagnostics for neurodegenerative diseases.
	UCSD, PaxVax	Combination vaccine to prevent genital herpes simplex virus infection.
	UCSF, AstraZeneca (MedImmune)	Three-year partnership to discover and develop small molecules and biologics.
	University of California Los Angeles, OncoSec Medical, PerkinElmer	Partnership on molecular biomarkers for cancer immune responses.
University of Texas (8 deals)	UCSF, OncoSec Medical	Evaluate Keytruda (pembrolizumab) with Merck's anti-PD-1 therapy and OncoSec's ImmunoPulse (intratumoral IL-12) in metastatic melanoma.
	MD Anderson Cancer Center, Johnson & Johnson (J&J) (Boston Innovation Center and Janssen Biotech)	Three-year deal to develop personalized immunotherapies for cancer through MD Anderson's Moon Shots Program.
	MD Anderson Cancer Center, J&J (Boston Innovation Center and Janssen Biotech)	Partnership to develop personalized immunotherapies for cancer.
	MD Anderson Cancer Center, Pfizer (Rinat Biotech)	Three-year deal on cancer immunotherapies (Moon Shots).
	MD Anderson Cancer Center, Manhattan Scientifics	Validate a non-invasive technology, nanoMRX, in detecting cancer.
	MD Anderson Cancer Center, AstraZeneca (MedImmune)	Three-year deal on cancer immunotherapies (Moon Shots).
	MD Anderson Cancer Center, GlaxoSmithKline	Develop immunotherapies for cancer (Moon Shots).
Broad Institute of MIT and Harvard (5 deals)	MD Anderson Cancer Center, Bristol-Myers Squibb	Partnership to evaluate Opdivo (nivolumab), Yervoy (ipilimumab) and three undisclosed clinical-stage immuno-oncology compounds.
	UT Medical Branch in collaboration with Scripps Research Institute and 10 others	Five-year NIAID \$28 million award to a consortium led by Scripps to develop immunotherapies for filoviruses and arenaviruses.
	Merck (EMD Serono), Pfizer	Partnership to identify biomarkers to define target patient populations for systemic lupus erythematosus (SLE) and lupus nephritis.
	Tetra Discovery Partners	Partnership to evaluate the ability of the company's phosphodiesterase-4D (PDE-4D) inhibitor to improve cognition in schizophrenia.
	Emerald Bio, NanoRacks, Protein BioSolutions, Center for the Advancement of Science in Space (CASIS)	Explore microgravity on crystallization of proprotein convertase subtilisin/kexin type 9 (PCSK9) and myeloid leukemia cell differentiation protein (MCL1).
University of Oxford (5 deals)	Harvard Medical School, Icahn School of Medicine at Mount Sinai, NIH, OHSU, UCI	\$64 million NIH grant to create the Library of Integrated Network-based Cellular Signatures (LINCS), a database of human cellular responses.
	Amgen, Massachusetts General Hospital	Explore targets, therapies for inflammatory bowel disease.
	GlaxoSmithKline, Medical Research Council, NIH, Wellcome Trust	£2.8 million (\$4.7 million) grant from Wellcome Trust, Medical Research Council and the UK's Department for International Development for an Ebola vaccine.
	BioMotiv, The Harrington Discovery Institute (University Hospitals, Cleveland)	International initiative to drive early-stage drug discovery and development.
	Bayer HealthCare	Partnership for therapies to treat endometriosis and uterine fibroids.
	Abide Therapeutics	Collaboration on the therapeutic potential of serine hydrolases.
	VolitionRx	Assess VolitionRx's proprietary Nucleosomics platform to diagnose endometriosis.

University of Edinburgh, Stanford, Yale and Columbia Universities, three deals each; Medical University of South Carolina, two deals. Because of consortia, some deals appear more than once. Source: BioCentury.

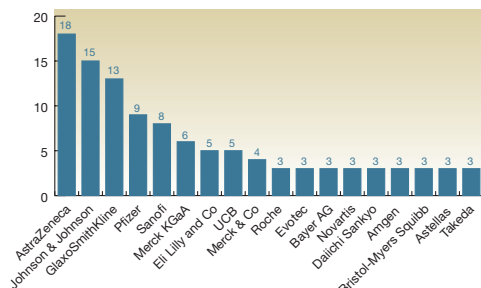


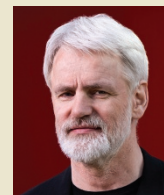
Figure 1 Most active pharma, biotech with academic/research institutes, 2014. Source: BioCentury.

First Rounders Podcast:

Kari Stefansson

Kari Stefansson is the founder and CEO of deCODE genetics, based in Reykjavik, Iceland. His conversation with *Nature Biotechnology* covers the founding of deCODE, his love for literature (and his favorite poet), plus his encounter with the tortured chess grandmaster Bobby Fischer.

<http://www.nature.com/nbt/podcast/index.html>



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