

Top 20 translational researchers of 2017

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Our ranking of biotech's top translational researchers (Table 1) is based on total patents (US and Europe) granted in 2017; the most-cited patent for the past five years; and the H-index, a method for determining the impact of a scientist's body of published work (higher means more impact). Robert Langer, of MIT, is again at the

top; UPenn's James Wilson moved up eight places from 2016; UT Southwestern's Joseph Ready joins the list, as do a trio of researchers from the University of Tokyo. MIT's Feng Zhang dominates the ranking of most-cited patents (Table 2), with CRISPR contributing to nucleic acid therapy as the biggest focus for most-cited patents (Fig. 1).

Table 1 Top 20 translational researchers in 2017

Inventor/assignee(s)	Total patents granted, 2017	Top-cited patent, 2013–2017 (number of citations)	H-index, as of 7/31/2018
Langer, Robert S./Massachusetts Institute of Technology	18	US 8450298; Aminoalcohol lipidoids and uses thereof (34)	260
Wilson, James M./University of Pennsylvania	17	US 8524446; Method for detecting adeno-associated virus (9)	113
Vogelstein, Bert; Kinzler, Kenneth W./Johns Hopkins & Duke University	16, 16	US 8685660; Genetic alterations in isocitrate dehydrogenase and other genes in malignant glioma (2)	250, 213
Gao, Guangping/University of Massachusetts & University of Pennsylvania	13	US 8734809; AAV's and uses thereof (13)	70
Lo, Yuk Ming Dennis/Chinese University of Hong Kong & Sequenom, Inc.	12	US 8467976; Fetal genomic analysis from a maternal biological sample (18)	82
Zhang, Feng/Broad Institute & Massachusetts Institute of Technology	11	US 8697359; CRISPR-Cas systems and methods for altering expression of gene products (168)	77
Weissman, Irving L./Stanford University	11	US 8562997; Methods of treating acute myeloid leukemia by blocking CD47 (17)	158
Yamanaka, Shinya/Kyoto University	11	US 8530238; Method of efficiently establishing induced pluripotent stem cells (8)	87
Weiner, David B./University of Pennsylvania	10	US 8852609; Consensus sequences of Chikungunya viral proteins, nucleic acid molecules encoding the same, and compositions and methods for using the same (3)	74
Atala, Anthony/Wake Forest University Health Sciences	10	US 8491457; Tissue engineered blood vessels (3)	92
Schultz, Peter G./Scripps Research Institute; Novartis; IRM LLC; Cardiac Pacemakers, Inc.	10	US 9139633; Mesenchymal stem cell differentiation (5)	126
Deisseroth, Karl/Stanford University	10	US 8398692; System for optical stimulation of target cells (51)	123
June, Carl H./University of Pennsylvania	9	US 8906682; Methods for treatment of cancer (28)	134
Lanzavecchia, Antonio/Institute for Research in Biomedicine in Bellinzona	9	US 8435524; Human cytomegalovirus neutralizing antibodies and use thereof (12)	131
Farokhzad, Omid C./Brigham And Women's Hospital & Massachusetts Institute of Technology	9	US 8367113; Polymers for functional particles (28)	82
Ding, Sheng/Scripps Research Institute	9	US 8906677; Generation and maintenance of stem cells (10)	63
Papadopoulos, Nickolas/Johns Hopkins & Duke University	9	US 8685660; Genetic alterations in isocitrate dehydrogenase and other genes in malignant glioma (2)	50
Ready, Joseph/University of Texas System	9	US 8362277 & US 8604074; Pro-neurogenic compounds (47 each)	21
Bradner, James E./Harvard University & Dana-Farber Cancer Institute	8	US 8383855; Histone deacetylase inhibitors (11)	79
Tanoue, Takeshi; Honda, Kenya; Atarashi, Koji/University of Tokyo	8, 8, 8	US 9415079; Composition for inducing proliferation or accumulation of regulatory T cells (9)	16, 40, 24

10 others with combined 8 patents each. H-index supplied by researcher or calculated through Web of Science or Google Scholar. Source: Acclaim IP

Table 2 Top 5 most-cited patents, 2013–2017

Patent number: title	Publication year	Inventors/assignee(s)	Patent citations, as of 3/16/2018
US 8119380 B2: Methods and materials for making and using transgenic dicamba-degrading organisms	2012	Donald P. Weeks, Xiao-Zhuo Wang, Patricia L. Herman/University of Nebraska	188
US 8697359 B1: CRISPR-Cas systems and methods for altering expression of gene products	2014	Feng Zhang/ Broad Institute & Massachusetts Institute of Technology	166
US 8642660 B2: Method for altering the lifespan of eukaryotic organisms	2014	David Scott Goldfarb/ University of Rochester	92
US 8865406 B2: Engineering and optimization of improved systems, methods and enzyme compositions for sequence manipulation	2014	Feng Zhang, Fei Ran/ Broad Institute; Massachusetts Institute of Technology; Harvard University	68
US 8795965 B2: CRISPR-Cas component systems, methods and compositions for sequence manipulation	2014	Feng Zhang/ Broad Institute & Massachusetts Institute of Technology	67

Source: <https://www.lens.org>

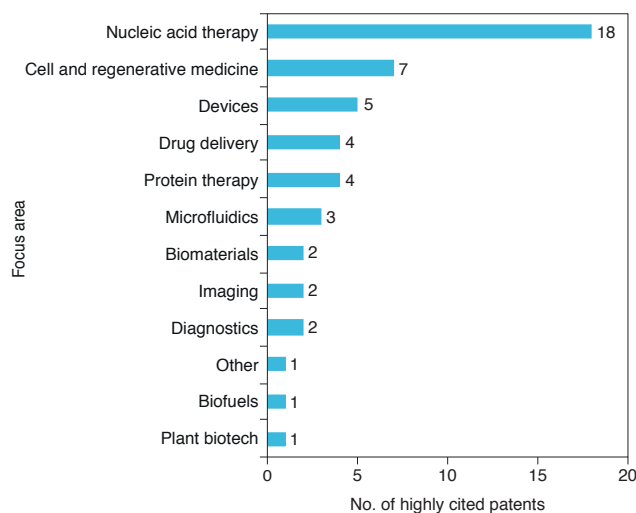


Figure 1 Focus area for 50 most-cited patents, 2013-2017. Source: Acclaim IP

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