

Top 20 translational researchers of 2016

Brady Huggett & Kathryn Paisner

Our ranking of biotech's top translational researchers for 2016 (Table 1) includes the researcher's most-cited patent for the prior five years and their H index, which measures the impact of a scientist's body of published work (higher means more impact). The top spot is occupied by MIT's Robert Langer, a frequent entrant on this list, and

Karl Deisseroth at Stanford. Ningshao Xia, of Xiamen University in China, is a notable newcomer. Table 2 lists the most-cited patents for 2012–2016, with the inventor and number of citations. A breakdown of the 50 most-cited patents for 2012–2016 reveals interest in nucleic acid therapy and delivery (Fig. 1).

Table 1 Top 20 translational researchers in 2016

Inventor/first assignee(s)	US patents granted 2016	Most-cited US patent for 2012–2016 (no. of citations, as of 4/27/2017)	H index ^a
Langer, Robert S./M.I.T.	20	US 8287849: Biodegradable poly(beta-amino esters) and uses thereof (27)	242
Deisseroth, Karl/Stanford University	19	US 8401609: System, method and applications involving identification of biological circuits such as neurological characteristics (33)	109
Zhang, Feng/The Broad Institute/M.I.T.	17	US 8771945: CRISPR-Cas systems and methods for altering expression of gene products (47)	63
Croce, Carlo M./Ohio State University/Thomas Jefferson University	17	US 8361710: MicroRNA-based methods and compositions for the diagnosis, prognosis and treatment of lung cancer using miR-21 (13)	211
Weiner, David B./University of Pennsylvania/Wistar Institute	16	US 8183352: Attenuated vif DNA immunization cassettes for genetic vaccines (37)	89
Vogelstein, Bert, and Kinzler, Kenneth W./Johns Hopkins University	14, 11	US 8444963: Tumor-specific delivery of therapeutic agents via liposomase (1)	243, 206
Xia, Ningshao/Xiamen University	13	US 8603467: Monoclonal antibodies binding to avian influenza virus subtype H5 haemagglutinin and uses thereof (5)	35
Okano, Teruo/Tokyo Women's Medical University	13	EP2644691: Measuring unit to be attached to cell culture container, cell culture container, and cultivation condition monitoring system (1)	142
Cheng, Jin Q./University of South Florida	13	US 8435959: Effective treatment of tumors and cancer with triciribine and related compounds (12)	2
Wilson, James M./University of Pennsylvania	12	US 8231880: Simian subfamily C adenoviruses SAdV-40, -31, and -34 and uses thereof (7)	113
Sebti, Said M./H. Lee Moffitt Cancer Center/University of South Florida	12	US 8435959: Effective treatment of tumors and cancer with triciribine and related compounds (12)	79
Li, Shaowei/Xiamen University	12	No cited patents	17
June, Carl H./University of Pennsylvania	12	US 9102761: Compositions for treatment of cancer (4)	123
Atala, Anthony, and Yoo, James J./Wake Forest University Health Services	11, 10	US 8491457: Tissue engineered blood vessels (3)	110, 65
Lo, Dennis Yuk-Ming/Chinese University of Hong Kong	10	US 8467976: Fetal genomic analysis from a maternal biological sample (15)	77
Arnold, Frances H./California Institute of Technology	10	US 8097440: Engineered microorganisms capable of producing target compounds under anaerobic conditions (6)	108
Yan, Jian/University of Pennsylvania	9	US 8133723: Vaccines against multiple subtypes of influenza virus (2)	25
Shimizu, Tatsuya/Tokyo Women's Medical University	9	No cited patents	122
Marks, James D./University of California, San Francisco	9	US 8299218: Therapeutic monoclonal antibodies that neutralize botulinum neurotoxins (9)	63

Antonio Lanzavecchia and Omid C. Farokhzad also had 9 patents in 2016. ^aH-index supplied by researcher or pulled from Scopus. Source: Acclaim IP

Table 2 Most-cited patents, 2012–2016

US patent no: title	Inventor/assignee(s)/applicant(s)	Publication year	Patent citations, as of 4/27/2017
US 8112142: Assessing the condition of a joint and devising treatment	Eugene J. Alexander, Thomas P. Andriacchi, Philipp Lang, Daniel Steines/Stanford University	2012	163
US 8629323: Methods and materials for making and using transgenic dicamba-degrading organisms	Donald P. Weeks, Xiao-Zhuo Wang, Patricia L. Herman/University of Nebraska	2014	85
US 8101566: Human aminoacyl-tRNA synthetase polypeptides useful for the regulation of angiogenesis	Paul Schimmel, Keisuke Wakasugi/Scripps Research Institute	2012	61
US 8445255: Inoculants including Bacillus bacteria for inducing production of volatile organic compounds in plants	Joseph W. Kloepper, Henry Y. Fadamiro, Esther N. Ngumbi, Kate W. Nangle/Auburn University	2013	53
US 8420605: Hydrogel compositions	Rein Vincent Ulijn, Vineetha Jayawarna, Andrew Smith, Julie Elizabeth Gough/University of Strathclyde	2013	47

Source: Acclaim IP

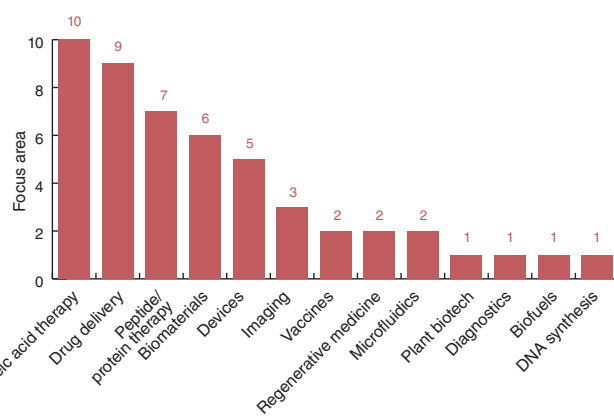


Figure 1 Focus area for 50 most-cited US patents, 2012–2016.

© 2017 Nature America, Inc., part of Springer Nature. All rights reserved.

Brady Huggett is Business Editor at Nature Biotechnology. Kathryn Paisner is an innovation consultant.