

Robert M. Plenge, MD-PhD

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617-515-3500 (cell) | robert.plenge@gmail.com | www.plengegen.com | [@rplenge](https://twitter.com/rplenge)**PROFESSIONAL SUMMARY**

After nearly 20 years in academic medicine, I transitioned to a career in the pharmaceutical industry in 2013. While at Merck Research Laboratories, I launched a new department of Genetics & Pharmacogenomics before being promoted to lead a 300-person Translational Medicine team focused on: validating and advancing novel genetic targets; developing and deploying imaging and molecular biomarkers in discovery, early and late development; Phase I/IIa clinical trial design and operations; and translational oncology research. In 2017 I moved to Celgene to lead Immunology & Inflammation within the Research & Early Development (R&ED) organization. Upon the BMS acquisition of Celgene, I was promoted to Senior Vice President and given responsibility for Immunology, Cardiovascular, Fibrosis, and Global Health (ICFG) within R&ED. Our ~200-person team is responsible for the strategic vision of ICFG within R&ED, including the advancement of our pre-clinical pipeline (~3 development candidates and 3 IND/CTAs per year) and translational support for our entire early development pipeline. A unique aspect of our model is close external partnerships that complement our internal expertise in areas such as protein degradation, cell therapy, and complex biotherapeutics. My aspiration is to build an entrepreneurial R&D team that delivers novel medicines to patients in greatest need.

SKILLS

- | | |
|-----------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Internal Medicine & Rheumatology | <input type="checkbox"/> Translational medicine |
| <input type="checkbox"/> Immunology & Inflammation | <input type="checkbox"/> Clinical pharmacology |
| <input type="checkbox"/> Human genetics and genomics | <input type="checkbox"/> Molecular biomarkers & diagnostics |
| <input type="checkbox"/> Research & early development | <input type="checkbox"/> Cell and gene therapy |

PROFESSIONAL EXPERIENCE**Internal Medicine Intern & Resident** | [University of California, San Francisco](http://www.ucsf.edu) | 2000-2002**Rheumatology Clinical Fellow** | [Brigham & Women's Hospital and Harvard Medical School](http://www.bwh.harvard.edu) | 2002-2006**Post-doctoral Research Fellow** | [Broad Institute of MIT and Harvard](http://www.broadinstitute.org) | 2003-2007

- > Research focus: genetic and genomics of complex traits such as rheumatoid arthritis
- > Advisor: David Altshuler (now Chief Scientific Officer at Vertex Pharmaceuticals)

Associate Physician | [Brigham & Women's Hospital](http://www.bwh.harvard.edu) | 2006-2013

- > Board-certified in Internal Medicine and Rheumatology
- > Adult rheumatology clinic (half-day weekly) and in-patient attending (~2 weeks per year)

Assistant Professor | [Harvard Medical School](http://www.harvard.edu) | 2008-2013

- > Academic lab of ~12 computational and wet lab scientists
- > Principle investigator on multiple grants: K08, RO1 (n=3), U01, U54, NIH subcontracts (5), Other (5)
- > Author on >100 peer-reviewed publications in top-tiered journals (e.g., *Nature*, *NEJM*, *Science*)

Vice President, Head of Genetics & Pharmacogenomics | [Merck & Co.](http://www.merck.com) | 2013-2015

- > Team of ~80 computational and wet lab scientists
- > Operating budget ~\$35M annually (e.g., FTEs, collaborations, clinical pharmacogenomics)
- > Co-chair of Early Discovery Council (scientific oversight of early discovery programs)

Vice President, Global Head of Translational Medicine | Merck & Co. | Feb. 2015-May 2017

- Team of ~300 people across three Departments (Genetics & Pharmacogenomics, Translational Biomarkers, Translational Pharmacology) in United States, Europe and Singapore
- Operating budget ~\$275M annually (e.g., FTEs, companion diagnostics, clinical pharmacology)
- MRL governance committees responsible for prioritizing Discovery & Early Development portfolio
- Early (~10 new clinical programs annually) and Late Development support (e.g., special populations)
- Therapeutic modality diversity (e.g., small molecules, biologics, mRNA vaccines, peptides)
- Experimental medicine (e.g., genotype-directed clinical trials, repurposing, biomarker platforms)
- Companion diagnostics strategy for Keytruda and all other therapeutics
- Translational oncology, including genomic databases for Keytruda clinical trials
- Genetic targets in all therapeutic areas (e.g., neuroscience, inflammation, cardiometabolic)

Vice President, Immunology & Inflammation | Celgene | May 2017-Nov. 2019

- Team of ~40 people within Research & Early Development and dotted-line to Clinical Development
- Operating budget ~\$30M annually (e.g., FTEs, laboratory supplies, external collaborations)
- Cross functional interactions with all pre-clinical and clinical functions to advance entire I&I portfolio
- Governance committees responsible for Discovery, Early Development, and Late Development
- Therapeutic modality diversity (e.g., cell therapy, protein degradation, small molecules, biologics)
- Business Development strategy and management for I&I (e.g., new partnerships, alliances)
- Translational support for entire clinical pipeline

Senior Vice President, Immunology, Cardiovascular, Fibrosis, Global Health | BMS | Nov. 2019-current

- Team of ~200 people within Research & Early Development and dotted-line to Clinical Development
- Operating budget ~\$100M annually (e.g., FTEs, laboratory supplies, external collaborations)
- Cross functional interactions with all pre-clinical and clinical functions to advance entire portfolio
- Governance committees responsible for Discovery, Early Development, and Late Development
- Therapeutic modality diversity (e.g., cell therapy, protein degradation, small molecules, biologics)
- Business Development strategy and management for ICFG (e.g., new partnerships, alliances)
- Translational support for our discovery and early development clinical pipeline

EDUCATION

Brophy College Preparatory | Phoenix, AZ | 1984-1988

- Awards & recognitions: Senior Class President, Varsity Basketball, National Honor Society

University of California, San Diego | San Diego, CA | B.S. General Biology | 1988-1992

- Awards & recognitions: *cum laude*, Phi Beta Delta International Honor Society

Case Western Reserve University | Cleveland, OH | MD-PhD | 1992-2000

- PhD thesis: Genetic control of X chromosome inactivation
- Advisor: Hunt Willard (now Director, Geisinger National Precision Health)
- Awards & recognitions: American Society of Human Genetics Pre-doctoral Clinical Award (1995), Alpha Omega Alpha Research Award (1995)

OTHER ACCOMPLISHMENTS

Top publications (out of >120 publications with ~30,000 citations to date):

1. **Plenge RM**, Hendrich BD, Schwartz C ... Willard HF (1997) *A promoter mutation in the XIST gene in two unrelated families with skewed X chromosome inactivation*, *Nature Genetics* Vol. 17 (3): 353-356.
2. **Plenge RM***, Seielstad M* ... Klareskog L, Gregersen PK (2007) *Genome-Wide Search Identifies TRAF1-C5 as Rheumatoid Arthritis Risk Locus*, *New England Journal of Medicine* Vol. 357 (12): 1199-209.
3. **Plenge RM**, Cotsapas C, Davies L, Price AL ... Altshuler D (2007) *Two independent alleles at 6q23 associated with risk of rheumatoid arthritis*, *Nature Genetics* Vol. 39 (12): 1477-82.
4. Raychaudhuri S, Remmers EF, Lee AT ... Klareskog L, Gregersen PK, Daly MJ, **Plenge RM** (2008) *Common variants at CD40 and other loci confer risk of rheumatoid arthritis*, *Nature Genetics* Vol. 40 (10): 1216-23.
5. Stahl EA, Raychaudhuri S, Remmers EF ... Gregersen PK, Klareskog L, **Plenge RM** (2010) *Genome-wide association study meta-analysis identifies seven new rheumatoid arthritis risk loci*. *Nature Genetics* Vol. 42 (6): 508-14.
6. Stahl EA, Wegmann D, Kraft P ... Raychaudhuri S*, **Plenge RM*** (2012) *Bayesian inference reveals polygenic architecture of four common disease*, *Nature Genetics* Vol. 44 (5): 483-9.
7. Li G, Diogo D, Wu D ... **Plenge RM** (2013) *Human genetics in rheumatoid arthritis guides a high-throughput drug screen of the CD40 signaling pathway*, *PLoS Genetics* Vol. 9 (5): e1003487.
8. **Plenge RM**, Scolnick EM, Altshuler D (2013) *Validating therapeutic targets through human genetics*, *Nature Reviews Drug Discovery*, Vol. 12 (8): 581-94.
9. Okada Y, Wu D, Trynka G, ... **Plenge RM** (2014) *Genetics of rheumatoid arthritis contributes to biology and drug discovery*, *Nature* Vol. 506 (7488): 376-81.
10. **Plenge RM** (2016) *Disciplined approach to drug discovery and early development*, *Science Translational Medicine* Vol. 8 (349): 349ps15.
11. **Plenge RM** (2017) *Human genes lost and their functions found*, *Nature* Vol. 544 (7649): 171-172
12. Diogo D...**Plenge RM**, Runz H (2018) *Phenome-wide association studies across large population cohorts support drug target validation*, *Nature Communications* Vol. 9 (1): 4285.
13. Sun BB, Maranville JC...**Plenge RM**, Danesh J, Runz H, Butterworth AS (2018) *Genomic atlas of the human plasma proteome*, *Nature* Vol. 558 (7708): 73-79

National Awards

- Career Award for Medical Scientists, Burroughs Wellcome Fund
- The American Society for Clinical Investigation

Board of Directors

- Anokion, Board Observer (2017-current)
- Brigham and Women's Hospital, Precision Medicine Advisor Board (2018-current)
- Geisinger Health System, Scientific Advisory Board (January 2019-current)
- Translate Bio (TBIO), Board of Directors (April 2019-current)
- Lupus Research Alliance, Scientific Advisory Board (April 2019-current)

PERSONAL

I am married (Alexa) with three daughters (Lucy [16], Molly [14] and Lila [11]). I enjoy outdoor activities, socializing with family & friends, Boston sports, and participating in any activities my kids want to do.