# Marcus Alexander, PhD, MPhil

Human Nature Lab | Yale Institute for Network Science | Yale University

#### contact

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#### education

Postdoc Stanford PhD Harvard MPhil Oxford BA Yale

### summary

I work as a sociobiologist at Yale on genomics of social networks, evolution of human cooperation and large-scale public helath interventions to imrpove and extend life. My postdoctoral research at Stanford used next-generation sequencing (NGS) and synthetic RNA to reprogram human adult cells into the induced pluripotent stem cells. I worked for Amgen, Genentech and Doximity, and co-founded a tech start-up in the Silicon Valley.

## EXPERIENCE

### research

since 2016 **Yale University** 

New Haven, CT

Research in Human Nature Lab directed by Nicholas Christakis on genomics of social networks, network experiments on artificial societies, and RCTs measuring impact of public heealth interventions in the developing world.

Stanford University School of Medicine 2009-2012

Postdoctoral research in the Departments of Biochemistry and Genetics. working on biohemistry of RNA, next generation sequencing and using modified RNA to engineer induced pluripotent stem cells.

2011-2012 **Howard Hughes Medical Institutes** 

HHMI MD Research Fellowship, working on epigenetics of brain tumors stem cells, fo- cusing on pediatric Glioblastoma Multiforme at the Institute from Stem Cells and Regenerative Medicine and the Department of Neurosurgery at Stanford.

sum 2010 **Memorial Sloan-Kettering Cancer Research Center** 

New York, New York MD Research Fellowship in the Oncology and Human Pathology, working on

the function of microRNA in brain tumors.

2008-2009 **Beth Israel Deaconess Medical Center and HMS** 

Graduate Clinical Research Fellow in Hand Research Group, Department of

Orthopedic Surgery, BIDMC and HMS

**Harvard Medical School** 2005-2009

Boston, MA

Graduate Research Assistant in the Christakis Group at the Department of

Health Care Policy and the Department of Sociology.

2004-2005 **Harvard University**  Cambridge, MA

Graduate Research Assistant in the Institute for Quantitative Social Science,

working on new statistical models using R/S-Plus, SAS, Matlab.

1998-2001 **Yale University** 

Research Assistant in the PVA/EPVA Center for Neuroscience and Regener-

ation and the Department of Neurology.

# industry

2011-2015 proVITAL, Inc Palo Alto, CA

Co-founder and CEO of a tech company in mobile medicine.

Apr 2012 Doximity, Inc. San Mateo, CA

Managed a new product on the largest online physician network.

2009-2010 Genentech, a member of the Roche Group South San Francisco, CA

Study Design, SAP, QoL, cost-effectiveness, budget impact.

2005-2007 Amgen, Inc. Thousan Oaks, CA

Economics of chronic kidney disease, cancer and osteoporosis.

### teaching

- · Co-designed and taught a new course HIV:Research, Treatment and Public Policy, Stanford, Spring, 2011
- · Teaching Assistant, Comparative Politics and International Relations, Stanford University, Fall, 2010
- Instructor, MCAT Prep Course for Examckrakers at Stanford, Spring, 2010
- Teaching Assistant, BIOL 45s: Biochemistry, Stanford University, Summer, 2010
- Senior Essay Advisor, Government Department, Harvard University, 2008-2009
- · Instructor, GOV 91: Junior Seminar: The Politics of the Middle East, Harvard University, Spring 2009
- · Teaching Assistant, Sociology of Health in America, Harvard University, Fall 2009
- Teaching Assistant, Gov 20: Foundations of Comparative Politics, Department of Government, Harvard University, Cambridge, MA, Spring 2007
- Teaching Assistant, GOV 98a: Sophomore Tutorial: Political Theory and American Politics, Harvard, 2007.
- · Teaching Assistant, GOV 98b: Sophomore Tutorial: Comparative Politics and IR, Harvard, 2006.

### awards

Howard Hughes Medical Institutes MD Fellow

Memorial Sloan-Kettering Cancer Center MD Fellow

> Royal Society of Econometrics World Congress Grant

Harvard Kennedy School Leadership Fellow

NSF Inequality and Public Policy

Research Fellowship

Sage Foundation Research Award

Oxford

Clarendon Scholarship

Wolfson College Junior Research Fellowship

Yale and MGU

Fox International Fellowship

Yale

Frank Patterson Prize

Trumbull College Class of 1986 Fellowship

#### service

Volunteer, Yale Haven Free Clinic, Fair Haven, CT, summer 2016;

President, LGBT Meds, Stanford University, 2010;

Coordinator, Orthopedic Specialty Clinic, Free Medical Clinic, East Palo Alto, CA, 2010;

LGBT College Advisor and Concentration Advisor, Lowell House, Harvard University, 2007-2008

### publications and presentations

- Characterizing the health of rural elders in social networks: Evidence from Honduras, Alexander M and N Christakis, to be presented at the American Public Health Association Annual Meeting, Atlanta, November, 2017.
- Genomics of Social Networks, Yale Institute for Network Science Summer Seminar Presentation, Yale, 2017.
- 3. Neurobiology of Addiction, Miriam House Foundation Presentation, Los Angeles, CA, 2016.
- 4. Epigenetic Reprogramming of Human Adult Cells into Induced Pluripotent Stem Cells (iPSCs), Center for Human Genomics and Personalized Medicine Presentation, Stanford, 2012.
- 5. Epigenetics of Brain Tumor Stem Cells, Review, Institute for Stem Cell Biology, Stanford, CA,2012.
- Histone Modifications in Brain Tumor Stem Cells, Howard Hughes Medical Institutes Presentation, Washington, D.C., 2012.
- 7. Micro-RNA Profiling of Glioblastoma Multiforme: Prognosis after Brain Tumor Surgery, Memorial Sloan-Kettering Cancer Center Presentation, 2012.
- Context Modularity of Human Altruism, Alexander M, Christia F. Science. 334(6061):1392-4. December 9, 2009.
- 9. Quantile Regression for Time-Series-Cross-Section Data, Alexander, M., M.Harding, and C. Lamarche. International Journal of Statistics and Management System 6:47-72. 2011.
- Institutionalizing Cooperation: Public Goods Experiences in the Aftermath of Civil War, Alexander M and Christia F. WCFIA Working Paper Series. 2009.
- 11. The Human Costs of Economic Crises, Alexander, M., M. Harding, and C. Lamarche, 2009. SIEPR Discussion Paper 08-029, Stanford University Applied Economics. 2009.
- 12. Effects of workers' compensation on the diagnosis and surgical treatment of patients with hand and wrist disorders, Day CS, Alexander M, Lal S, Horton H, Ahn CS, Pauyo T, Rozental TD. J Bone Joint Surg Am. 6;92(13):2294-9. October 2010.
- Chronic kidney disease and US health carere source utilization in a nationally representative sample, Alexander M, Bradbury BD, Kewalramani R, Barlev A, Mohanty SA, Globe D. Am J Nephrol ;29(5):473-82. 2009.
- 14. Bias and asymmetric loss in expert forecasts: a study of physician prognostic behavior with respect to patient survival, Alexander M. and Christakis, NA., J Health Econ.;27(4):1095-108. July 2008.
- Validation of an objective device for assessing circumductive wrist motion, Franko OI, Lal S, Pauyo T, Alexander M, Zurakowski D, Day C. J Hand Surg Am.;33(8):1293-300. October 2008
- Association of anemia correction with health related quality of life in patients not on dialysis, Alexander M, Kewalramani R, Agodoa I. Globe D. Curr Med Res Opin.;23(12):2997-3008. December 2007.
- 17. Is poverty to blame for civil war? New evidence from nonlinear fixed effects estimation, Alexander M and Harding M. Econometric Society World Congress. 2006.
- 18. Self-Regulation and the Certification of the European Information Economy: The Case of E-Heath Care Information Provision, Alexander M and Harding M. Discussion Paper Series 154, Department of Economics, University of Oxford. April 2007.
- Determinants of Social Capital: New Evidence on Religion, Diversity and Structural Change, Alexander M. British Journal of Political Science 37:02: 368-377. April 2007.
- The Internet and Democratization: The Development of Russian Internet Policy, Alexander M. Demokratizatsiya, 607-627. 2004.