



DIYgenomics is a non-profit research organization founded in 2010 with the goal of realizing **preventive medicine** through crowdsourced health research studies and personal genome smartphone applications. The generalized hypothesis is that one or more genetic polymorphisms may lead to out-of-bounds biomarker levels that can be improved through personalized intervention.

### **Crowdsourced health research studies (run on the Genomera platform)**

- Vitamin Deficiency Studies
  - Vitamin B-9 and MTHFR variants
  - Vitamin D Study
- Aging Studies
  - Aging: telomere length and telomerase activation therapy
  - Aging: risk reduction for common aging conditions through monitoring and intervention
  - Retin-A: wonder cream for acne and wrinkles
- Cognitive Performance (Collaboration: University of Geneva)
  - Processing Reality: Impact of Dopamine Modulation on Memory Filtering
- Personality and Epistemology (Collaboration: Stanford University, Rikengensis Japan)
  - Knowledge generation through self-experimentation
  - Social Intelligence Genomics Study: empathy, altruism, and optimism
- IRB-approved, launching 3Q 2012 (Collaboration: Stanford University, Rikengensis Japan)
  - Diabetes Quantified-Self Tracking Study
  - Genomics and Caffeine Sleep Study
- In-design: Gut Microbiome Profiling and Probiotic Intervention in a Healthy Cohort

### **Selected List of Publications**

- Swan, M. DIYgenomics citizen science health research studies: personal wellness and preventive medicine through collective intelligence. AAAI Symposium on Self-Tracking and Collective Intelligence for Personal Wellness 2012, March.
- Swan, M. Crowdsourced Health Research Studies: An Important Emerging Complement to Clinical Trials in the Public Health Research Ecosystem. *J Med Internet Res* 2012, Mar;14(2):e46.
- Swan, M. Scaling crowdsourced health studies: the emergence of a new form of contract research organization. *Personalized Medicine* 2012, Mar;9(2):223-234.
- Swan, M., Hathaway, K., Hogg, C., McCauley, R., Vollrath, A. Citizen science genomics as a model for crowdsourced preventive medicine research. *J Participat Med.* 2010 Dec 23; 2:e20.
- Swan, M. Multigenic Condition Risk Assessment in Direct-to-Consumer Genomic Services. *Genet. Med.* 2010, May;12(5):279-88.
- Swan, M. Emerging patient-driven health care models: an examination of health social networks, consumer personalized medicine and quantified self-tracking. *Int. J. Environ. Res. Public Health* 2009, 2, 492-525.

### **Representative Press Coverage**

- When Medicine Really Gets Personal: The DIY Clinical Trial, **Wall Street Journal**, March 2012
- Citizen Scientists - Ordinary people are taking control of their health data, making their DNA public and running their own experiments, **Wall Street Journal**, December 3, 2011
- Secrets of My DNA, **WIRED UK**, March 11, 2011
- Technology: A flavour of the future, **Nature**, December 22, 2010
- Garage biotech: Life hackers, **Nature**, October 7, 2010
- Nature Medicine logo Personalized investigation, **Nature Medicine**, September, 2010