

## GEMS Final Research Projects (alphabetical by author)

	<b>Student</b>	<b>Research Title</b>		<b>Mentors</b>
1	<b>An, Tae-Hwei (Linus)</b>	<b>Exploratory CART analysis of BMI: Mining gene-gene interactions and generating hypotheses</b>	August 2008	<b>Ingrid Borecki, Michael Province</b>
2	<b>Barve, Ruteja A.</b>	<b>Mining Interactions in Candidate Genes for Hypertension</b>	May 2008	<b>C. Charles Gu</b>
3	<b>Bergmann, Kelly R.</b>	<b>Race-specific association analysis of genetic variants and flanking haplotypes in the surfactant protein B gene with neonatal respiratory distress syndrome: a case-control study from a Missouri cohort</b>	August 2006	<b>F. Sessions Cole, Aaron Hamvas, Ping An</b>
4	<b>Bhonagiri, Veena</b>	<b>Microarray Analysis of Gene Expression Profiles in Regenerating Avian Sensory Epithelia</b>	May 2004	<b>Michael Lovett</b>
5	<b>Breed, Mason</b>	<b>A Validation Study of Mutation Detection Software for Next-Generation sequencing Analysis of Complex Diseases</b>	December 2008	<b>C. Charles Gu &amp; Rakesh Nagarajan</b>
6	<b>Brunt, Andrew Van</b>	<b>Using Growth Curves to Model Triglyceride Responses to Fenofibrate Therapy: Associations of Responses with Candidate Genes</b>	August 2006	<b>Ingrid Borecki</b>
7	<b>Budde, Laura R.</b>	<b>Methods to Detect SNP Associations with Family Data: A Comparative Analysis</b>	December 2005	<b>Mike Province</b>
8	<b>Chou, Yi-Ling</b>	<b>Evaluation of multiple imputation and LASSO to identify SNPs in a genome-wide association study</b>	August 2009	<b>Gina D'Angelo</b>
9	<b>Crosswhite, Michael</b>	<b>Theory and Applications of Index Selection to identify Responder vs. Non-Responders to Chemotherapy Drugs</b>	August 2006	<b>Aldi Kraja, Michael Province</b>
10	<b>de las Fuentes, Lisa</b>	<b>Dissecting the Role of CD36 in Metabolic Genetic Pathways to Hypertensive Heart Disease</b>	May 2008	<b>C. Charles Gu &amp; Victor Davila-Roman</b>
11	<b>de Erausquin, Gabriel</b>	<b>Hypodopaminergic state as a quantitative trait in schizophrenia: Identification of SNP clusters by decision tree machine learning and QTLs by association</b>	December 2008	<b>Alison Goate, C.Robert Cloninger, Treva Rice, &amp; Yun Ju Sung</b>
12	<b>Duan, Yanan</b>	<b>Enhanced association analysis of a candidate region for fitness response to exercise in the HERITAGE Family Study by incorporating HapMap data and genotype imputation</b>	August 2008	<b>C. Charles Gu &amp; Treva Rice</b>
13	<b>Flores, Hugh</b>	<b>Latent Factors in High-dimensional Hypertensive Heart Disease Related Phenotypes</b>	August 2006	<b>C. Charles Gu &amp; Victor Davila-Roman</b>
14	<b>Howell, Shannon M.</b>	<b>An Improved Alogorithm for Finding Linked Subsets in the Presence of Heterogeneity or Interactions</b>	April 2005	<b>Miike Province</b>
15	<b>Huang, Pinchia (Any)</b>	<b>Linkage Analysis of Metabolic Syndrome and Echocardiographic Factors in the HyperGEN Study</b>	August 2007	<b>Aldi Kraja, Treva Rice, D.C. Rao</b>

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<u>16</u>	Jacobsen, Petra	Filtered Association Techniques to Detect Genes Influencing CEPH Cell Line Response to Docetaxel Chemotherapy Drug in Chromosome 5	August 2006	Aldi Kraja, Mike Province
17	Juang, Jyh-Ming (Jimmy)	Association and Interaction of PPAR-complex Gene Variants with latent Traits of Left Ventricular Diastolic Dysfunction	August 2008	Victor Davila-Roman, C. Charles Gu, & Lisa de las Fuentes
18	Ketkar, Shamika	Genetic Association Analysis of Secondary Traits of Hypertension and a Functional Candidate Gene in the HyperGEN Study	May 2004	C. Charles Gu
<u>19</u>	Kothari Parul	Evaluation of PGC1a Gene Variants in Modulating Hypertensive Heart Disease Phenotypes	Dec. 2006	Victor Davila-Roman, C. Charles Gu
20	Kume, Rezart	An investigation of candidate genes for metabolic syndrome through protein-protein interactions: the HyperGEN study	August 2009	Aldi T. Kraja Michael A. Province D.C. Rao
21	Liu, Hsien-Ning	Analysis of genotyped and imputed variants in the nicotinic receptor subunit genes outside CHRNA5-CHRNA3-CHRNA4 for association with nicotine dependence	August 2009	Nancy L. Saccone
<u>22</u>	Liu, Kuang-Yao (Dennis)	Association Analysis of the Dopamine Receptor Genes with Alcohol Use and Related Phenotypes in a Longitudinal Finnish Study	August 2006	Danielle M. Dick
23	Liu, Ying (Peter)	Linkage and Association Studies of Alcoholism Phenotypes in the COGA Study	May 2005	Nancy Saccone
24	Ma, Duanduan	The Peroxisome Proliferator-Activated Receptor Gamma2 Gene is Linked to and Associated with Fasting Blood Glucose Level in the FHS Study	May 2004	Ingrid Borecki
<u>25</u>	Markus, Matthew	Graphical Modeling of Genetic Associations and Viability in CEPH Cell Lines under Chemotherapeutic Selection Pressure	April 2005	Aldi Kraja, Mike Province
26	Park, Yong-Moon	Contribution of Important Candidate Gene Networks and Inflammatory Markers to Metabolic Syndrome	December 2008	Aldi Kraja, Mike Province, & D.C. Rao
27	Patki, Amit	Bivariate Linkage Analysis of Obesity and Diabetes in the HERITAGE Family Study	May 2004	Treva Rice
<u>28</u>	Peters, Michael	Genetic Study: Coronary Artery Calcification in the FHS-SCAN Study	May 2004	Mike Province
29	Phillips, Keydra L.	Major Gene Effect and Additive familial pattern of Inheritance of Asthma Exist among families of Proband with Sickle Cell Anemia and Asthma	August 2006	Michael R. DeBaun, Ping An
30	Pierce, Brandon	Localization of Psoriasis Susceptibility Variants with Family Based Association Methods	May 2004	Anne Bowcock
<u>31</u>	Pincus, Elisa Rachel	Association Studies of VAV Gene SNPs with Crohn's Disease	December 2006	Anne Bowcock

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32	Robarge, Jason	Family-based association mapping for the identification of PSORS4, a psoriasis susceptibility gene mapping to the Epidermal Differentiation Complex on human chromosome 1q21	May 2005	Anne Bowcock
33	Rochat, Ryan	A Novel Method Combining Linkage Disequilibrium Information and Imputed Functional Knowledge for <i>tag</i> SNP Selection	May 2005	C. Charles Gu, Victor Davila-Roman
<u>34</u>	Ross, Jerlinda G.C.	Enhanced association analysis of candidate genes and LVH traits by modeling population admixture in the HyperGEN study	August 2009	C. Charles Gu, D.C. Rao
35	Schierding, William S.	The role of dopamine receptor genes in drinking patterns, alcohol dependence, and related psychiatric phenotypes: Data from the longitudinal Finnish twin Studies	August 2006	Danielle M. Dick
36	Schrage, Andrew Jonathan (JA)	Combining imputation and cross-population analysis to refine and localize a cocaine dependence association signal on Chromosome 15	August 2008	Nancy L. Saccone
<u>37</u>	Shao, Jin	Bivariate Linkage Analysis of Fitness Responses to Exercise Training in the HERITAGE Family Study	August 2007	Treva Rice
38	Shi, Jinguo	A Meta-analysis of Genome-wide Linkage Scans for Body Mass Index	December 2004	Treva Rice
39	Sikka, Namrata	Investigation of the genetic architecture underlying the cardiovascular risk factors in a novel and relatively homogeneous sample from rural China	August 2009	Treva Rice
<u>40</u>	Su, Yu-Chen (Ray)	Non-alcoholic fatty liver disease (NAFLD)	August 2009	Ingrid Borecki
41	Wang, Jian	Tree Linkage Analysis of Lipids in the HyperGEN Study: Covariate Interactions and Linkage Heterogeneity	April 2005	Ingrid Borecki
42	Winston, Julia	Analysis of Microarray Data to Characterize Genes Underlying Cleft Lip and Palate	May 2004	Michael Lovett
<u>43</u>	Wu, Jun	Genome-Wide Linkage Analysis of Lipids in the HyperGEN Study: An Investigation of the Effects of Lipid-Lowering Medications	May 2004	D.C. Rao, Aldi Kraja
44	Zhou, Jia	Genome-Wide Assessment of Imprinting Effects on the Genetic Linkage of Obesity in the HyperGEN Study	August 2007	C. Charles Gu, D.C. Rao
45	Ziyab, Ali H.	A Comparative Analysis of Avian and Mammalian Inner Ear Development and Regeneration	August 2006	Michael Lovett