Northwestern University Feinberg School of Medicine

Genomic Literacy
How Much is Enough?
(and how can the library help?)

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Galter Health Sciences Library

May 21, 2012 – AAAS Science Translational Medicine panel:
Genomic Medicine, Personalized Genomics, and Genomic Literacy:
Contributions from Health Science Libraries

Northwestern University

FEINBERG
SCHOOL OF MEDICINE
"White feet"

"Don’t treat"


MDR1 p-gp
The Educated Consumer

Information found on:
- Breed-specific websites
- Consumer animal health websites
  - [http://www.offa.org/dna_alltest.html](http://www.offa.org/dna_alltest.html)
- Veterinary hospital websites

An informed consumer can alert the practitioner
Beyond Pharmacogenomics


http://www.k9behavioralgenetics.com/
CTSA MSCI physician researchers

- What’s a biomarker?
- How do I make sense of GWAS studies and their gene lists?

Resources

- Pathway analysis products
  - How to interpret large gene sets
- Gene Ontology
- OMIM, GeneReviews
  - NHGRI (genome.gov)
- Genetic Testing Registry (GTR)
Physicians

IDPH / Illinois State Genetics Plan (ISGP) grant with Genetic Counseling

Literature Searches

• Genomic competency in health personnel
• Medical genetics/education
• Genetics knowledge and attitudes

Result:
Whole genome sequencing is now cheaper than GWAS SNP arrays

- Referral to the Biomedical Informatics Core

I have all this SNP array data—what do I do with it?

- Pathway analysis products
  - How to interpret large gene sets
- Data deposit assistance services
- Collaboration with NUBIC on experimental design consultations

Do the questions drive the data, or vice versa?
For the NU Community

• Collaboration with NUBIC, Division of Health & Biomedical Informatics, Genetics and Genomics Education Cluster on a series of Genomic Medicine peer-to-peer seminars (Thanks for the ideas, Kristi Holmes!)

• Pathway analysis peer-to-peer training “summits”
Librarians & Libraries
Librarians’ genomic literacy

• Special education not always required
• Learn what types of resources are appropriate for all levels of knowledge
  • Public, clinician, basic scientist, grad or undergrad or medical student
• Library staff with genomic/molecular backgrounds
  • Can provide valuable consultation and education for clinicians and researchers, easing the burden on the bioinformatics facility and saving the researchers money

Learn from your library peers
Thank you!

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