Challenges of Assembling Cohorts (and Collaborations)

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Some Examples

Collaborative Study of the Genetics of Asthma
NHLBI supported 4 R01s (1997-2003)
Collaboration post-award
Coordinating Center 2 years into project

Type 1 Diabetes Genetics Consortium (2002-2010)
Candidate gene Association Resource (CARe)
NHLBI supported primary site (2006-2011)
Limited support for contributing cohorts

NHLBI Exome Sequencing Project (2008-2011)
Some Examples

Collaborative Study of the Genetics of Asthma
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Type 1 Diabetes Genetics Consortium

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NHLBI Exome Sequencing Project
Type 1 Diabetes Genetics Consortium

In the beginning...
- November 1998; NIH Consensus Conference
- April 2000; Diabetes Y2K Workshop (Skagen, Denmark)
- May 2000; JDRF/NIDDK conference call
- November 2000; NIDDK Genetics of Type 1 Diabetes Conference
- T1DGC Steering Committee established (Rich as Chair)

Getting organized...
- February 2001; Conference call to establish study aims
- March 2001; Steering Committee to define resources (NIDDK)
- June 2001; Steering Committee to define the project (Copenhagen)
- August 2001; Steering Committee and T1DGC members (Seattle); plans finalized for study; Rich to write grant
Timeline

Application process
- Grant writing, submitted February 2002
- NIDDK Council May 2002
- Requested start date July 1, 2002
- Actual Start Date September 1, 2002

Develop a Coordinating Center
- Clinic/regional site identification and computing issues (data entry, tracking, inventory, labels)
- Form development/questionnaires
- Manuals of Operations/Procedures
- CIDR samples and genome scan (batch 1/3)
Points of Emphasis

NIDDK Project Officer, Akolkar

External Advisory Committee
Gregerson, Chair

Steering Committee
Rich, Chair

Regional Networks
- Asia-Pacific
  Morahan, PI
- European
  Nerup, PI
  Pociot, Co-PI
- North American
  Greenbaum, PI
- United Kingdom
  Todd, PI

Standing Committees
- Access
  Edwin Gale, Chair
- Bioinformatics
  Mychaleckyj, Chair
- ELSI
  Hall, Chair
- Phenotyping/Recruitment
  Pociot, Chair
- Publications and Presentations
  Concannon, Chair
- Quality Control
  Steffes, Chair

Laboratories
- Asia-Pacific Labs
- European Labs
- North American Labs
- United Kingdom Labs
- NIDDK Data & Sample Repositories

Laboratory Data

Forms Data

Liaisons/Observers
- NIDDK
- JDRF
- NIAID
- NHGRI
- Wellcome Trust
- ITN
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ITN
European Network
27 countries, over 100 centers for recruitment
Asia-Pacific Network
15 countries

Vast geographic area
Many cultures
Transfer and sharing
Intellectual Property
Different Countries, Cultures, and the Ethical, Legal and Social Issues (ELSI) Committee

Responsible for promoting the ethical and legal conduct of this research study

– Draft model informed consent form templates
– Recommend policies for minimum requirements to meet ethical standards
– Advise Regional Networks on adapting informed consent forms to local requirements
– Advise the Steering Committee regarding intellectual property issues
– Address other general legal and ethical issues that arise and are within the competence of committee members to consider
Model Informed Consent Form

Purpose, Description
Consent for DNA, cell lines, samples (layered)
Ownership of samples, data
Risks, Discomforts/Benefits
Alternatives, Right to Withdraw
Confidentiality
Costs, Compensation, Treatment
Parent consent, teenage/child assent
Recontact
Publications and Presentations Committee

Assure and expedite orderly and timely presentations and publications

Assure that all investigators have the opportunity to participate in the study-wide presentation of T1DGC papers

Assure that presentations and publications of T1DGC study materials are accurate, objective, and do not compromise the scientific integrity of this collaborative study

Assist in maintaining a complete up-to-date list of T1DGC Study presentations and publications on the study web site
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Laboratory Data

Forms Data
Welcome to Type 1 Diabetes Genetics Consortium (T1DGC)

This website is designed with different visitors in mind. Which visitor are you?

**Family Interested in Study**
Recruitment for the T1DGC has started in the four regional networks. If you would like more information about participating in this important study, click here.

**Investigator Interested in Joining Consortium**
T1DGC is organizing international efforts to identify genes that determine an individual's risk of type 1 diabetes. For further information, click here.

**Consortium Member (please log in below)**
Welcome to Type 1 Diabetes Genetics Consortium

This website is designed with different visitors in mind. Which visitor are you?

**Family Interested in Study**
Families with at least two siblings (brothers and/or sisters) who have type 1 diabetes are unique. If you are part of such a family, you have a great opportunity to contribute to this important research.

- Find out more about the study
- Where is the study being conducted and who do I contact?
- See the article in the Fall 2005 issue of the JDRF publication Countdown and learn about a family that participated in T1DGC

**Investigator Interested in Joining Consortium**
T1DGC is organizing international efforts to identify genes that determine an individual’s risk of type 1 diabetes. For further information, click here.

**Consortium Members Login:** (Login procedures and password requirements)

User Name: srich
Password: *********

Submit Login
Consortium Membership

Request via Website (www.t1dgc.org)

Consortium agreement (participation, access)

Participation

- Recruitment of new families
- Contribution of existing families (IRB permitting)
- Resource contribution (genetic, clinical, methodologic)
- Participation in committees (working groups)
- Data Analysis, Publication

Leverage of Consortium resources
Contributor Benefits

Groups providing (new/existing) data to T1DGC

- Retain rights to analyze and publish own data
  - Request data immediately
  - Request data after “Q/C and cleaning”
  - Request assistance from Coordinating Center
- Consortium analyze/publish data only in aggregate
- Access to interim Consortium results (secured website)
- Request access to all Consortium data and resources

Funding opportunities through the Consortium
Technology transfer (workshops, resources)
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NHLBI Exome Sequencing Project
NHLBI Exome Sequencing Project (ESP)

Program Officer: Deborah Applebaum-Bowden

**Heart GO**
- PI: Stephen Rich
  - University of Virginia

**Lung GO**
- Pls: Michael Bamshad
  - U. of Washington
- Kathleen Barnes,
  - Johns Hopkins University

**Women’s Health Initiative Sequencing Program**
- PI: Rebecca Jackson
  - Ohio State University

**University of Washington**
- Pls: Debbie Nickerson,
  - Mark Rieder,
  - Jay Shendure, & Phil Green

**BROAD Institute**
- Pls: Stacey Gabriel &
  - David Altshuler
Integration, communication and transparency within HeartGO
Communication and coordination with ESP Steering, Executive, NHLBI
Communication and coordination with contributing cohorts
(each with its own structures)
Project Teams and Writing Groups are the focus of work

Writing Groups are phenotype specific (CHARGE model)
Broadly inclusive membership
  - Team leader/moderator (may/may not be lead author) sets agendas, coordinates calls, assigns responsibility for minutes
  - Representation from cohorts, sequencing centers, other Phenotype Working Groups
  - Phenotype experts within cohorts encouraged to participate

Integration and communication within HeartGO
Integration and communication within ESP
Responsibilities

**Phenotype Working Group**
- Prioritize phenotypes
- Recommend capacity between phenotypes
- Coordinate across phenotypes
- Define samples
- Coordinate delivery

**Project Team**
- Identify team members
- Select team leader/moderator
- Develop analysis plan
- Create/post timeline of deliverables
- Coordinate, merge, analyze data
- Develop paper proposals
- Report progress to Steering Committee
- Communicate results through publications, meetings
Summary

Time for organization and development of processes
Coordinating Center functions in support
Development of common goals, aims, deliverables
Representation from interested parties
  Transparency
  Communication
  Coordination
Early determination of study regulations, publications, sharing

*mobile, agile but not hostile*