Research Training Opportunities in North America

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Disclosures

• Consulting or Advisory Panel:
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Questions to Ask

• What kind of research am I interested in?
• What Mentors are available?
• What is the Research Training Program like?
• What institution/city/location will be desirable?
Liver Research Disciplines

• **Basic**
  – Mechanisms of disease, targets, physiology

• **Clinical/ Translational**
  – Investigator initiated research
    • Human subjects
    • Human tissue-derived samples
    • Early Phase Trials
  – Industry-sponsored trials
    • Therapeutic trials
    • Device development

• **Health Outcomes/ Health Service and Delivery Science**
Spectrum of Translational Research

CLINICAL TRANSLATIONAL RESEARCH SPECTRUM

Basic Scientific Discovery

Preclinical Insights

Clinical Insights

Implications for Practice

Implications for Population Health

Improved Global Health

Translation to Natural Animal Models

Translation to Humans

Translation to Patients

Translation to Practice

Translation to Population
Questions to Ask Yourself

• What research field is important to address the problems of people in my country?

• What type of research am I most interested in?

• What opportunities will be available when I return to my home institution?
  – Mentors? Funding? Space? Collaborators?
My Research Focus

- Fatty liver disease
- Viral Hepatitis
- Cirrhosis
- Primary liver cancer
- Autoimmune liver diseases
- Acute liver failure
- Cholestatic diseases
- Liver transplantation
Finding a Mentor

• AASLD membership
  – Annual meeting
  – Career Development Awards
  – Committee membership
• AASLD Mentoring Program
• Personal Contacts by Hepatologist at your institution
• Visiting Professors
• Email

• The Liver Meeting (November)
  – Early Morning Breakfast
  – Meet the Professor Luncheons
  – Women’s Forum
  – Basic Science Workshop
• Research Symposia
  – SIG programs
  – Emerging Topic Conferences
As requested by the AASLD Membership and Mentorship Committee and approved by the AASLD Governing Board, we have developed a Mentoring Program between Fellows of AASLD (FAASLD) and fellows-in-training and early-career hepatologists.

The intent of this program is to match FAASLD members with trainee members and hepatologists within two years of training in areas of interest to include research, career development, work/life balance, clinical practice and more.

This mentor/mentee relationship will initiate during The Liver Meeting® 2017 and then virtually, via Skype, email or telephone, or in person depending on location of the mentor/mentee pair. The time commitment will be for at least 12 months and can continue if mutually agreed upon by the mentor and mentee.

Who is Involved
Qualities of a Good Mentor

• Availability and Commitment, personal interest in you
• Expertise and Reputation
• Values ongoing lifelong learning
• Willingness to share skills, knowledge, expertise
• Sets goals and helps you achieve them
• Meets regularly and enthusiastically
• Past Training Record
• Success of Prior Mentees
• Organized but flexible approach to meet needs of mentees
Where to Find These Opportunities
Liver Research Institutions

• Universities
• Academic Medical Centers/Hospitals
• Private Research Institutes
• Government Institutes (e.g., NIH, CDC)
• Pharmaceutical and Biotech companies
Consider Research Program Portfolios

- **Government-supported university or hospital-based programs**
  - Individual labs and clinical research programs
    - Funded by NIH, VA, CDC, other sources (endowments, foundations, industry, etc.)
  - **Centers and Institutes**
    - Sponsored by NIH Institutes (NIDDK, NIAAA, NIEHS, etc.)
  - **Collaborative Research Networks (multi-sites)**

- **Government Intramural programs**
  - NIH, CDC, FDA, etc.

- **Private research institutes**
  - Pennington, MD Anderson, etc.
  - Typically disease focused (e.g., on nutrition, cancer, etc.)
  - Funded via endowments + mix of government and non-government funds
Can You Acquire Liver Research Skills?

- Humans subjects research training
- Animal model development
- Molecular and cell biology techniques
  - RNA/protein analysis
  - Biochemistry
  - Metabolic profiling
  - Gene transcription
  - Gene manipulation/CRISPR-Cas9
  - Cell culture
- Epidemiology/Biostatistics training
- Health outcomes methods
- Clinical Trial Design training
- Bioinformatics
  - Large data sets
  - “omics”
- Regulatory expertise
- Rigor and reproducibility
- Writing grants, abstracts, manuscripts
- Presenting and publishing
Challenges

WE'RE WORKING ON A CURE FOR FUNDING CUTS.
Other Challenges

• Initial Funding: living expenses, travel, family
• Language: communication is key to success
• Medical licensure:
  – Documentation of certification needed
  – Re-training may be required (J1 and H1 visas)
  – Waivers (underserved populations)
• U.S. Citizenship:
  – Green card or US citizenship necessary for NIH grant funding
• Going back home:
  – Position availability/resources/protected time
“Where there’s a will there’s a way”
Take Home Points

• Research Training in Hepatology in the United States and Canada is available

• AASLD has many venues to link trainees with mentors and research institutions

• Life-changing experience for most

• Key to success is realistic expectations, excellent mentorship, and a clear plan and pathway following this training

• Support of family, colleagues and the research institution