

Unique Challenges for MD New Investigators

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Topics to Cover

- Protected time
- Scope of clinical practice
- Limited time
- Salary
- Resources
- Technical expertise
- PhDs are not commodities

Protected Time

- Typically what is negotiated up-front
- The non-protected time, will be your clinical FTE
- i.e. 50% protected = 50% clinical
- Used to set clinical benchmarks
- If you go under your benchmarks – bad reviews
- If you go over → bonus

Protected Time

- **Time with no scheduled clinical duties**
- **What if a patient you saw/operated on yesterday has severe bleeding?**
- **What if a patient seen in clinic has bad cancer and needs surgery and your next availability is in 2 months?**
- **Only you can protect your “protected time”**

Scope of Clinical Practice

- **You cannot be a master clinician doing all cases see patients/operating 5 days/week and be a super successful R01-funded researcher**
 - **At least not at first**
 - **May come in time (unlikely) but need to pay your dues to research first**

Scope of Clinical Practice

- **If you are only 50% clinical, you will only see 50% as many patients**
- **If you don't narrow your focus, your experience in any given case will be half of someone else's**
- **Surgery is a technical field**
- **Practice makes perfect**

Scope of Clinical Practice

- **If you limit to 1 or 2 diseases (and for surgeons – to a limited number of operations) – volumes can be higher than peers despite only 50% clinical**

Limited Time

- Compared to PhD colleagues, you have less time
- Unable to attend seminars, research meetings, learn new skills
- Become more reliant on collaborators
- What you bring to the table is your clinical knowledge and samples

Salary

- **Maximum salary on an NIH grant is \$203,700**
- **Most clinicians make more**
- **If a clinician makes \$250,000 and is 100% NIH funded, there will be a deficit of \$47,000 + fringe (25-35%)**
 - **Someone will need to pay ~\$60,000**

Salary

- **Most institutions are willing to pay – to a point**
- **Minimize costs by:**
 - **Restricting salary**
 - **Restricting protected time**
 - **“Cheating”**
 - **2 days/week of research = 20 hrs = 50%**
 - **3 days/week of clinical**
 - **For many – that is 40% protected time**
 - **Billed at 50% research**

Resources

- **Need to negotiate:**
 - **Space**
 - **Time**
 - **Start-up funds**
- **Start-up funds:**
 - **Cover annual travel costs?**
 - **CME?**
 - **Licenses?**
 - **Computers? Equipment? Furniture?**

Technical Expertise

- **Most MDs will not have the technical research experience needed**
- **Need to find key collaborators**
- **How to get them to work with you?**
- **What can you bring to the table?**
 - **Clinical expertise**
 - **Samples**
 - **\$**

PhDs are not commodities

- **You don't need part of a statistician**
 - **You need a statistician collaborator**
- **You don't need part of a basic scientist**
 - **You need a basic science collaborator**

PhDs are not commodities

- **Think of PhDs as collaborators**
 - **They are people**
 - **They have strengths and weaknesses**
 - **You will be more successful if you collaborate rather than “purchase” their services**

Summary

- **Clinician/scientist life can be very rewarding**
- **Clinical work will always be there**
- **If research not successful early – doubtful will ever be successful**
 - Not true for clinical
- **Beware MD arrogance**
 - Research is collaborative – you are not the boss

Summary

- **Understand who pays your salary and what are your metrics**
- **You get what you negotiate for, not what you deserve**

Transitioning into Junior Faculty and Becoming an Early Career Translational Investigator

Arsen Osipov, MD

Assistant Professor, GI Medical Oncologist

Adjunct Assistant Professor, Johns Hopkins University

Health Sciences Assistant Clinical Professor, UCLA



Why do academic medicine and oncology?

Academic Oncology



PERFECT TRIFECTA

**Research and
Exploration**

Clinical Care

Teaching

My Journey

- Selected as Chief Clinical and Research Fellow at Johns Hopkins 2019
- Received the Linda Rubin Fellowship Endowment for GI/Pancreas Cancer research 2019-2020
- AACR Vail Course
- ASCO Young Investigator Award
- Developing **mentorship** team around pancreas cancer, immunology, translational clinical trial design



- GI Medical Oncologist and Clinical Translational Investigator
- Adjunct Faculty & Assistant Professor at JHU
- Focused on clinical translational pancreatic cancer.
- Working on basic science/translational and clinical trials
- Have small lab within my mentor's larger lab
- Continue **mentorship** with senior faculty and mentoring fellows/students
- K08 and CCF ASCO CDA recipient (PROTECTED TIME)
- Program development: Panc Multi-D Clinic Program Lead



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VCU

Residency

- **Mentorship**
- Building research plan/direction
- Pancreas cancer focus
- Clinical skill development



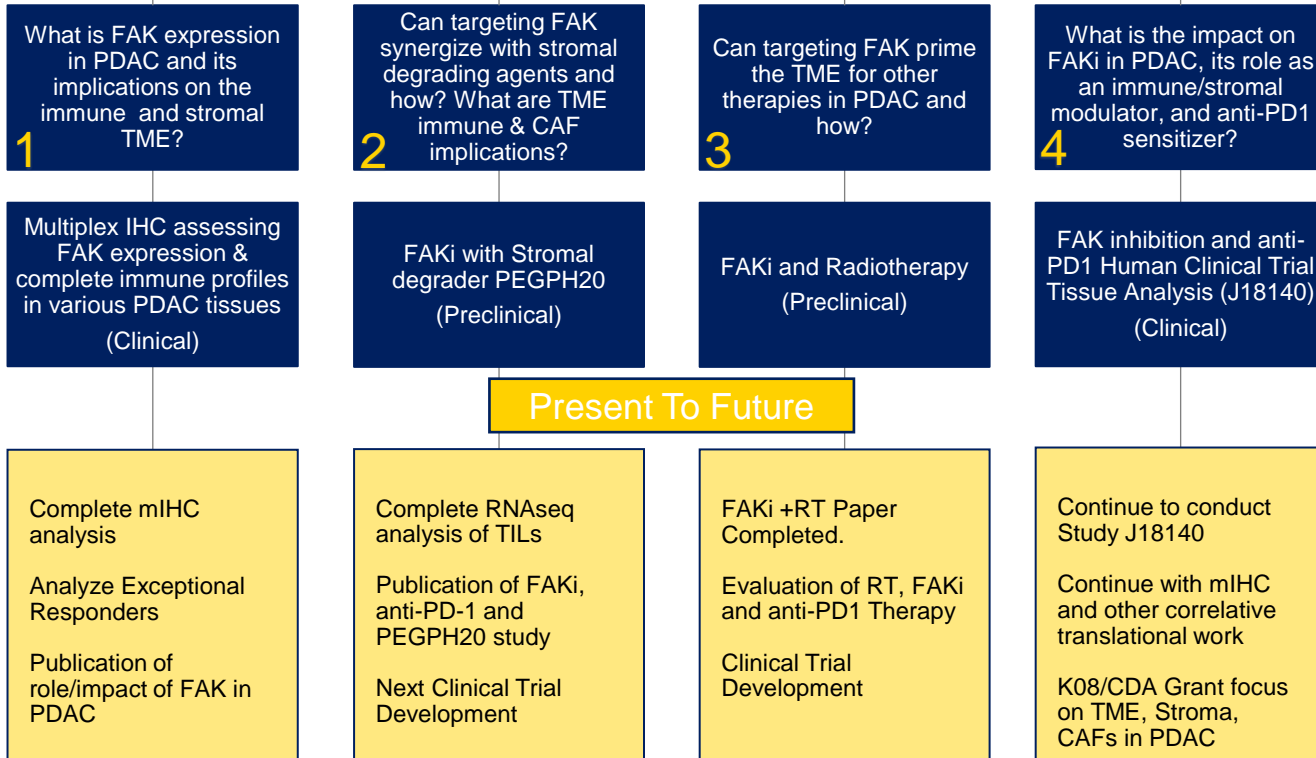
Planning the transition to junior faculty

Think about:

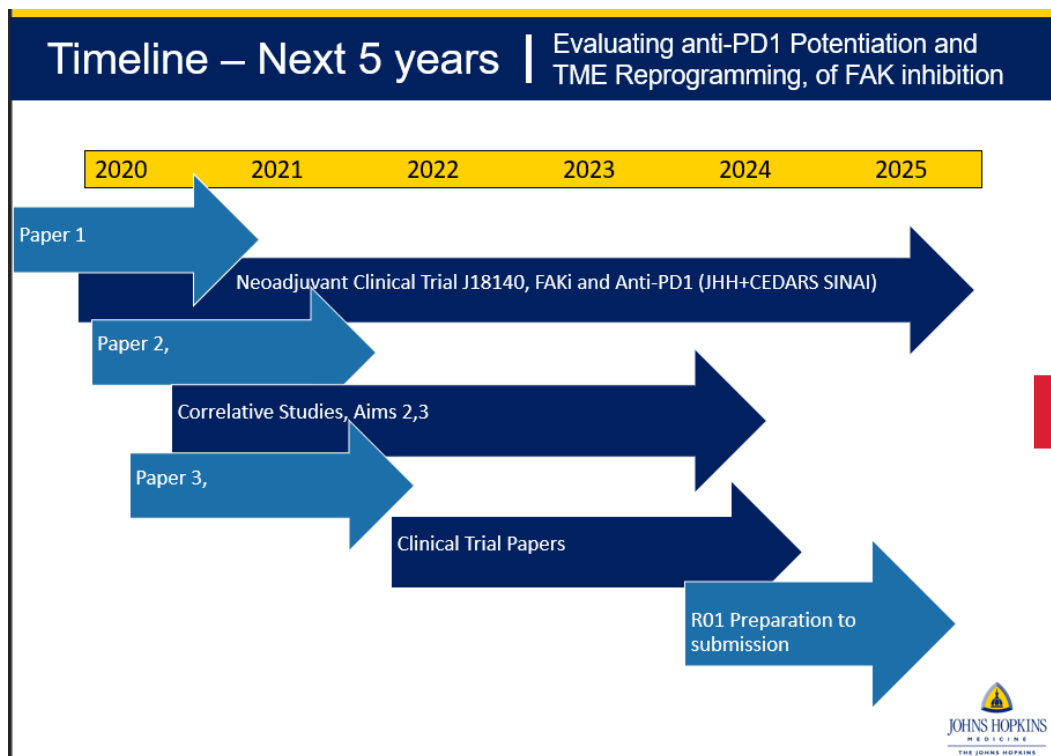
- **Projects and projects transition**
- **Protected time**
- **Lab support? Clinical support? From institution and leadership, Startup funds/transition Funds**
- **Clinical Volume**
- **Mentors and Mentoring Team**
- **Grants and Industry**

Role of Focal Adhesion Kinase in TME Immune/Stromal Modulation of PDAC

Fellow to Faculty



Timeline Planning



Refine your 5-year plan

Assess at regular intervals

Utilize Mentoring Team

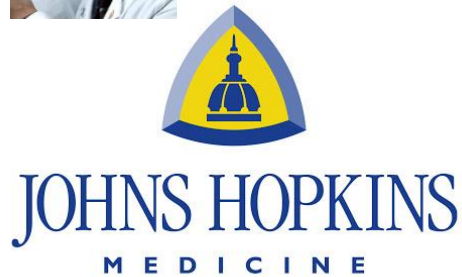
Things to focus on years 1-2 of academic faculty

Things to do:

- Recognize deficits capability/knowledge deficits, work on additional coursework/skills
- Find collaborators for deficits for projects (ie stats, bioinformatics)
- Hire staff as needed
- Further developing skillsets
- Plan for K->R or equivalent transition early on
- Grants and grantsmanship should be constant evolving process

Avoid:

- Try best to not lose focus on primary projects
- Additional clinical projects/work or side projects



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Building your career and Take Away Points

Think about programmatic development

Set a goal of what is needed to be TRULY independent

Revisit Metrics for success, goals and planning of career

- **Stay focused on your primary projects and research**
- **MENTORSHIP IS CRITICAL**
- **Collaborate**
- **Plan ahead from each year to the next**

Thank You

Making the Transition from Training to Clinician Investigator

Jun Gong, MD

Assistant Professor, Medical Oncologist

AACI PCLI Webinar

March 9, 2022

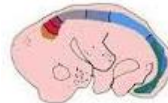
Basic Science Training



X chromosome is essential in fruit fly eye development



HOX genes pattern and develop the vertebrate lumbar spinal cord



risks factors promote pancreatitis and pancreatic cancer in mice models



10 years wet lab experience:

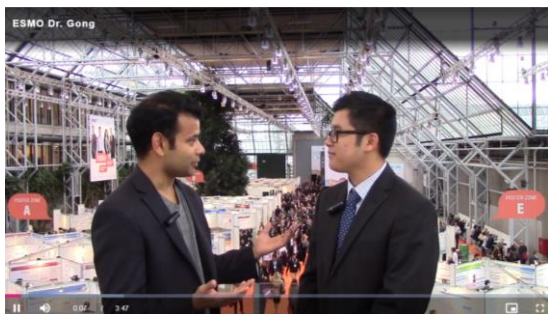
- lab assistant → lab tech
- embryo isolation, tissue sectioning, IHC, cell counting, animal breeding and maintenance, cell collection and culture, RNA collection, RT-PCR, real-time PCR, Western blotting, and immunofluorescence staining

Clinical Training and Research Focus



Genitourinary (GU) Oncology

Gastrointestinal (GI) Oncology



- Chief Fellow
- Young Investigator's Think Tank, Kidney Cancer Association (KCA)
- KCA Travel Award, Kidney Cancer Association for the 15th International Kidney Cancer Symposium
- 2017 NCCN Oncology Fellows Program
- 2017 ASCO/AACR Workshop on Methods in Clinical Cancer Research



Transition to Junior Faculty



Clinical: Medical oncologist
specializing in GI/GU cancers

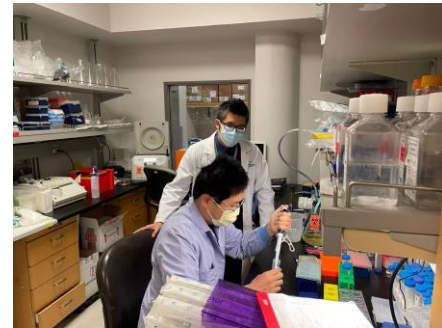
Gastrointestinal (GI) Oncology

Genitourinary (GU) Oncology

Research Focus

Fund/support 3 separate labs within mentors'
larger labs focused in:

1. Targeting tumor metabolism (Gong/Bhowmick)
 - Glutamine metabolism in prostate cancer
 - Glutamine metabolism in pancreas cancer
2. Circulatory metabolic and DNA markers (Gong/Hitchins)
 - Plasma metabolomics and colorectal cancer progression
 - ctDNA in colorectal cancer
3. Dry lab at VA Durham database in prostate cancer (Gong/Freedland)



Transition to Junior Faculty



Colorectal cancer clinical trials program:

Localized rectal cancer

1. Alliance N1048: A Phase II/III Trial of Neoadjuvant FOLFOX with Selective Use of Combined Modality Chemoradiation versus Preoperative Combined Modality Chemoradiation for Locally Advanced Rectal Cancer Patients Undergoing Low Anterior Resection with Total Mesorectal Excision (PROSPECT)

Role: Site PI

2. NRG-GI002: A Phase II Clinical Trial Platform of Sensitization Utilizing Total Neoadjuvant Therapy (TNT) in Rectal Cancer

Role: Site PI

Metastatic colorectal cancer

First-line

3. Randomized Double-Blind Phase III Trial of Vitamin D3 Supplementation in Patients with Previously Untreated Metastatic Colorectal Cancer (SOLARIS)

Role: Site PI

4. An Open-label, Multicenter, Randomized Phase 3 Study of First-line Encorafenib Plus Cetuximab With or Without Chemotherapy Versus Standard of Care Therapy with a Safety Lead-in of Encorafenib and Cetuximab Plus Chemotherapy in Participants with Metastatic BRAF V600E-mutant Colorectal Cancer

Role: Site PI

Second-line

5. A Randomized Phase 3 Study of MRTX849 in Combination with Cetuximab Versus Chemotherapy in Patients with Advanced Colorectal Cancer with KRAS G12C Mutation with Disease Progression On or After Standard First-Line Therapy

Role: Site PI

Refractory

6. CO40939: A Phase Ib, Multicenter, Open-Label Study to Evaluate the Safety, Efficacy, and Pharmacokinetics of RO6958688 in Combination with Atezolizumab After Pretreatment with Obinutuzumab in Patients with Previously Treated Metastatic, Microsatellite-Stable Colorectal Adenocarcinoma with High CEACAM5 Expression

Role: Site PI

7. A Phase I/Ib Global, Multicenter, Open-label Umbrella Study Evaluating the Safety and Efficacy of Targeted Therapies in Subpopulations of Patients With Metastatic Colorectal Cancer (INTRINSIC)

Role: Site PI

8. COLOMATE: Colorectal Cancer Liquid Biopsy Screening Protocol for Molecularly Assigned Therapy

Role: Site PI

9. PULSE: A Randomized, Phase II Open Label Study of Panitumumab Rechallenge Versus Standard Therapy After Progression on Anti-EGFR Therapy in Patients With Metastatic and/or Unresectable RAS Wild-Type Colorectal Cancer

Role: Site PI

Key Pointers on Transition to Clinician Investigator



Mentorship really shapes your career path

- GI and GU oncology

In choosing the right mentor/collaborator

- Bounce ideas no matter the difference in experience/background
- Take concepts we see in the clinic → test in the lab
- Translate preclinical → clinic (IITs)
- Think and structure your long-term goals and future for success

In choosing the right job/faculty position

- Allows you to do what you enjoy/your focus (while making money out of it)
- GI and GU oncology
- Build colorectal cancer program

Key Pointers on Transition to Clinician Investigator



Build a story

- “Jack or Jill of all trades” but can still be focused
- Tumor agnostic approach → Tumor metabolism and biomarkers across GI and GU cancers
- Pivotal towards larger federal/NIH grants

Build a clinic/practice

- The more you see, the more nuances you will notice that experts develop and what cannot be taught in textbooks → only sheer volume can
- Crucial for accrual to your trials and translational research projects/collaborations
- Sets the stage for your recognition as a KOL

Network among colleagues both academic and industry

- Amazing what you learn, again nuances from master clinicians or scientists by hearing them speak or talk about how they would manage a case
- Sets the stage for your face to be recognized among KOLs
 - Conferences, meetings with industry (MSL's), speaker events, case-based roundtables, etc.

Thank You

