The Training Plan
K12 Seminar Series

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Training Plan = Curriculum

• At this stage of your career you are responsible for your own training!
  – Mentors are supposed to help, but it’s ultimately your responsibility.

• E.g. Postdoctoral Research Fellowship
Fellowship Curriculum: Overview
(based on a 2-3 year-long T32 Fellowship)

• Year 1: Learn, Explore, Prepare
• Year 2: Get Funding
• Year 3: Get Funding – Round 2
Fellowship Curriculum: Year 1

• What skills / expertise do you aim to gain?
• Primary mentorship
• Coursework
• Secondary / other mentorship & guidance
• Identify dataset for primary / secondary analysis
• Write your paper(s)
Fellowship Curriculum: Year 1

- Identify dataset for primary / secondary analysis
- Look at others’ (mentors, peers) data or studies
- Targeted analysis -> preliminary data (grants), paper
- Take advantage of unanalyzed data in year 1
  – hard to find time to return to datasets later in career.
- Learn how people designed studies (e.g. look at their grants) and put together databases. Learn from their mistakes. Would you do things differently?
- Get pilot grants, only if you need own preliminary data. Caution: too many of these are distracting.
Fellowship Curriculum: Year 2

• Consolidate what you’ve learn in year 1
  – Complete data analysis
  – Write / publish papers
  – Coursework / Mentorship
  – Define the focus of your early research career

• Launch your ideas
  – Career Development Award vs. Other Grant types
  – Feasibility vs. The Perfect Project

• Consider your timing:
  – How long will it take you to prepare the K application?
  – What will you do while you are waiting for your score?
Fellowship Curriculum: Year 3

• Continue working on securing funding

• Other options for funding?
  – Internal awards
  – Small grants
  – Other grant mechanisms
  – Clinical / Administrative duties

• Evaluate your department / division / group
  – Mentorship, Funding, Promotion

• Other Career Options?
K Award: The Training Plan

• What are your goals? Who will you become?
  – What does your K T-Shirt say?

• Career development activities / curriculum to achieve those goals (and independence!).

• Your curriculum is unique and customized to fit your background, deficits in your past training, and your future goals.

• Don’t train in an area or skill in which you are proficient – take your skills a step further.

• This is your opportunity to take charge of your training and career development!
K Award: The Training Plan

• Harold Pincus’ Envisioning exercise (modified):
  – “In 10 – 15 years I want to be the world expert in.....”
  – “The first major grant (i.e. R 01) to put me on the road toward this goal (i.e. in 4 – 5 years) would look like...”
  – “The knowledge / skills / training I would need to successfully conduct the project in the R01 are...”
  – “Through this K award, I need to gain expertise in .......”
K Award: The Training Plan

• The training plan is a roadmap towards that goal.
• This training plan must be thematically linked to other sections of the application.
  – The science (specific aim) sets the training goal.
  – The scientific biography sets up the arc of training: where you are coming from -> where you are going.
• Logical and internally consistent
• Balance realistic vs. ideal curriculum
Nuts & Bolts: Training Goals

• Divide thematically by goal

• Divide by type of activity to achieve each goal

• Argue that the training activities you propose are required to achieve your specialized goals.

• Training in the Responsible Conduct of Research!

• Academic and Research Productivity

• Review of candidate progress
Training Goals

• Divide training plan thematically by goal
• No more than 5 specific goals
• Types of goals:
  – Expertise in specific area
    • Clinical
    • Scientific
  – Attainment of specific technical skills
    • Research methods (bench, MRI, statistics, epidemiology, etc)
    • Research design
    • Clinical Skills
    • Participant recruitment / assessment
Example of Training Goals

Overarching Goal: *Neuroimaging in Adolescent SUDs*

1. Addiction Psychiatry: research, adolescents

2. Cognitive Neuroscience of addiction: development, learning and memory

3. fMRI methods: data processing, analysis & interpretation
Types of Activities to Achieve Goals

• Mentorship
• Consultation
• Didactics
• Hands on Experience
• Conferences

*Can be used with any training goal*
Activities: Individual Meetings

• Meetings with mentors and experts should have a set goal, focus and frequency – *be specific*

• Primary & Co Mentors
  – Each has a set role / teach you something specific
    • NOT THERE SIMPLY TO PAD THE GRANT!!!
  – Oversee, guide & troubleshoot your progress
  – Meetings can be tutorials / guided readings

• Consultant
  – Local / remote, in person meetings / travel
  – Consult regarding specific topic

• Clinical supervisor
Activities: Didactics / Structured Learning

• Official Registration for Courses (Credit/Audit): $
• Unofficial Auditing
• Degree program (if little research training)
• NYSPI Courses
• Columbia / NYSPI Seminar series & Journal Clubs
• Short courses (local / away) – can be hands on
• Conferences
  – Fit with specific goal
  – Meet with mentors, consultants, collaborators, etc.
  – May offer short courses
Activities: Hands on Experiences

• Practical courses
• Visit labs where specific skills can be attained
• Mentors / Consultants guide & supervise analysis of sample datasets or data acquired during K
• Clinical work in, run or set-up specialty clinics
• Supervised participant assessment
Activities: Don’t Forget

• Responsible Conduct of Research
  – IRB
  – Ethics course
  – Guided reading

• Productivity
  – Publication goals
  – Research milestones
  – Grants
  – Oversight by committee better than by mentor only
    • Describe: procedures for oversight, frequency of meetings, in person/virtual, your reports to committee, remediation.
Sample Goal Outline

• Goal 1: Name of Goal – Restate / Describe
  – Mentoring
    • Name 1, what will you do, what will you learn, and how often will you meet?
    • Name 2 ...
    • Can have separate sections for consultants collaborators and supervisors or put all under mentoring
  – Classes / Didactics
    • Front loaded over 5 years, indicate year, include statistics
  – Productivity
    • Research: experiments, IRB/FDA, recruitment, data analysis
    • Papers: Title/topic, when and with which mentors?
    • Grants: small grants, R01, timing
Training Plan
Graphic by Goal

Note 1:
Color coding of activity type & tally of % effort

Note 2:
Reviewers should get your grant in color but their printers are b/w. Color should be chosen to also come out as distinct shades.
Training Plan Graphic by Activity Type:
This is a less logical strategy – avoid.
Thematic Coherence

• All parts of the application must fit together

• “The training plan” should reflect both “The Candidate” and “The Research Plan” sections.

• Conversely, “The Research Plan” section is actually a training vehicle, so should be viewed as complimenting “The Training Plan”
Review and Edit, Review and Edit ....

• After writing draft of training plan, review scientific biography (and research aims).

• Consider editing biography (emphasize/de-emphasize) to fit training plan.
  
  – Show weaknesses strategically: give specific examples of areas where you need additional training to reach your research career goals.

• Go back and edit the training plan for consistency
Find Your Sweet Spot

Suggestion:
In the Training plan, err on the side of being ambitious. In the research plan, err on the side of being conservative.
Keep in Mind

• How does your career development / training plan fit with other sections?
  – How does it fit with your long and short-term goals?
  – Give specific details / examples

• Make it easy for the reader (i.e., *spoon feed!!!*)
  – State and restate the take-home message / themes

• Be specific and JUSTIFY

• Show that you are capable of doing it