
Research Lecture
The Successful
Research Program:
People, Infrastructure,
Finances

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Global Objectives

- **Improve Emergency Medicine Dx, Rx**
- **Know how to quickly evaluate patients**
- **Determine how to use empiric therapies**
- **Provide evidence-based protocols**
- **Facilitate disposition, improve pt outcome**
- **Improve Emergency Medicine practice**

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Specific Objectives

- **Know how to best work with people**
- **Develop necessary technical resources**
- **Accrue necessary financial resources**
- **Work within a well-structured system**
- **Succeed in conducting research within your own institution**

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Methodology

- **Consider what are key support elements**
- **Review my own work experience**
- **Looked for successful systems**
- **Compiled list of potential activities**
- **Caveat: do as I say**
- **Requirement: keep specific goals in mind**

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A Personal Perspective on Work

- We manage critically ill ED patients
- We provide primary care
- “Emergency physicians take a surgeon’s approach to medical emergencies.”
- We do procedures, we are good at them
- Research is the same way
- Only ask others to do what you can do
- Do it right the first time with quality

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A Personal Perspective on Research

- Ask questions continually
- Be willing to be a lifelong student
- Create value commensurate with work
- Publish with the written word, images
- Create parallels to residency director
- Work with like-minded people

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Session Plan

- Establish infrastructure & financial needs
- Meet the people with whom we work
- Specify action steps with these people
- Make obtaining necessary support likely
- Create an environment for research success and your success

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Infrastructure Needs

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Research Imperative

- Need an atmosphere where research success is as important as is the clinical and educational missions
- Need a department with a mission, a plan, and the will to get it done

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Time

- Can the clinical work not be so overwhelming that research can be done?
- Need people who come to work with the time and energy to conduct, present, and publish research
- Need people who can teach others

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Space

- Office desk space
- Meeting, resident space (posters)
- Space for research faculty, staff
- Space for part time employees
- Space for computers
- Space for storage of materials
- Space for a large printer

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Office Support

- Computers, printers, LCD, laptops
- Computer software
- Secretarial support
- Travel support
- Reimbursement support
- Meeting support

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Computer Support

- Computer maintenance
- Data form creation and entry
- Preliminary data analysis
- PPT generation
- Poster generation
- Web support

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Statistical Support

- More sophisticated stats analysis
- Ability to do logistic regression
- Graph generation
- SAS, SPSS support

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Travel Support

- Financial
- Logistics
- Reimbursement

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Financial Support

- Research infrastructure
- Specific projects
- Presentation and publication
- Travel

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Financial Needs

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Protected Time

- Multiple people must get paid to do research and to do it well
- Time cannot be continually disrupted
- Time must be substantial, and not part of general pool of time for conference attendance or sleeping off night shifts
- Time must be secured year to year

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Clinical Release Time

- When clinical trials support comes in, it must support additional Clinical Release Time (CRT) of the involved EM research faculty
- This is in addition to the protected time that is for general research support and productivity

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Direct Cost Support

- Office, computer costs
- Staff costs
- Costs to pay for those who take call
- IRB costs
- Specific project costs

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Indirect Cost Recovery

- You need a portion of the ICR that is provided to the institution in support of the infrastructure that supports the research work
- A “Research Director’s Tax”
- Promotes EM research development

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Bonus Support

- Any and all bonus funds must be tied to successful conduct, presentation, and publication of research
- Grantmanship must be specifically rewarded, even if it results in a double benefit to the faculty member

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People

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The Dean/College of Medicine

- Is the “boss” of EM Department Chair
- Oversees faculty practice plan
- Controls tenured faculty promotion
- Supports EM salaries
- Uses “Dean’s Tax” to hire new faculty
- Controls Dean’s portion of Indirect Cost Recovery (ICR), the institutional costs

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The CEO/Hospital

- Works with EM Department Chair
- Oversees support for ED operation
- Controls new hires (+/-)
- Supports EM salaries
- Can support salaries of EM Fellows
- May modify research direct costs

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EM Department Chairman

- Your boss, is the goal setter
- Oversees clinical, academic operations
- Controls all hires
- Controls all salaries
- Uses “EM Dept Tax” to support?
- Controls Dept’s portion of ICR

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Business Manager

- Your financial advisor
- Knows all of the books
- Can help with your grants
- Can assist with all hires
- Can support your salary
- Can facilitate grants, contracts, IRB

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Research Director

- You
- Are responsible for people, infrastructure, finances, motivation, idea generation, conducting the research, presenting and publishing the work, staying organized, working
- Half the support of other directors
- Last priority within all institutions

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Research Coordinator

- Your chief of staff
- Can assist with people, infrastructure, finances, motivation, idea generation, conducting the research, presenting and publishing the work, and staying organized
- Caveats Re: skill set, work priorities

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Research Nurse

- Is essential to doing clinical trials
- Part-time work (joint appointment)
- Often is performed by Research Coordinator (in part)
- Cost is an issue, must utilize wisely
- Often transient workers by necessity

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ED Head Nurse

- In charge of clinical operations
- May have an interest in research
- A critical ally to ED-based research
- May have advanced degree, interest
- Can promote ED RN training, support

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ED Operations Director

- Colleague, peer
- In charge of making the ED work
- No intrinsic interest in ED research
- Constant static, needs no more
- May be a like-minded academic
- May have a research focus

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ED Nurses

- Can be allies
- Clinical work is primary concern
- May want to work part-time for you
- Can assist other research RNs
- Can support the research mission
- Will they call you when an eligible study patient is in the ED?

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ED Staff

- Will they call you when an eligible study patient is in the ED?
- Can assist with forms and calls
- Might want to work part-time

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ED Patients

- Rich source of research ideas and opportunities
- Generally support research mission
- Make the enterprise worthwhile
- May generously support the mission in retrospect

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EM Attending Physicians

- Will they call you when an eligible study patient is in the ED?
- Will they be a part of the research?
- Do they wish to be a co-investigator?
- Are they motivated by clinical release time, promotion and tenure?
- Are they intrigued by the work?

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EM Residents

- Will they call you when an eligible study patient is in the ED?
- The life blood of our specialty and our research
- Each year is a fresh start and a new opportunity for success
- Have time on their hands, and a willingness to do computer-based work

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Medical Students

- Eager to do research
- A ready made imperative
- Can do chart reviews
- Can enroll patients
- Can actually write grants and achieve at a high level

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Graduate Students

- Computer and web support
- Data development and entry support
- Statistics support
- Work for research tuition waiver

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EM Office Staff

- Often are looking for compelling work
- Are able to do printing or typing work
- May be able to search and work with Pub Med
- Surely can assist with publication and archiving steps

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Institutional Review Board

- An integral part of the process
- Can be the source of extensive work
- Must be able to effectively communicate with these people
- Need to facilitate expedited reviews
- If fast, can provide competitive edge

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Grants and Contracts Office

- Must negotiate with all external sources of funding
- Prefer templates that require minimal revision
- Must address the needs of the institution
- If fast, can provide competitive edge

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Animal Lab

- Expands scope of EM research
- Meets the needs of non-clinical researchers
- Important link to industry
- Potential for external grants
- Intramural grant opportunity

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Clinical Research Center

- Generally does more chronic projects
- May be able to support research generally with education
- May have staff that can be shared
- May have a place for follow-up or patient holding during OBS protocols
- May be able to support your non-clinical time

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A Plan

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Create an Imperative and Plan

- Consider 9/11
- Clarity of purpose
- Uniform vision and effort
- Definite action plan
- Sense of making a difference
- Limited distractions
- Maximal support

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Hire Like-minded People

- You must create a buzz with those around you
- The clinical mission must dovetail
- This work requires a gutcheck
- Although it can be developed, it is mostly believed in and acted upon
- See what the Dean can do
- Negotiate with your EM Dept chair

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Meet with ED Researchers

- Know who you are
- Capitalize on strengths
- Create synergies
- Make the work enjoyable
- Maximize all forms of support
- Upgrade infrastructure
- Strip away all barriers

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Meet with Academic Supporters

- EM Department Chair
- EM Residency Director
- Medicine Dean
- All grant sources
- All grant process supporters
- Upgrade infrastructure
- Strip away all barriers

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ED Operations Collaboration

- Streamline all processes
- See who can help and how
- Find out which patients fit the process
- Maximize buy-in
- Utilize all forms of support

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People

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EM Department Chairman

- Negotiate non-clinical time
- Negotiate upcoming hires, fellows
- Negotiate a cut of the EM Dept ICR
- Negotiate support staff (half and half)
- Negotiate office space
- Negotiate computer, travel support
- Negotiate bonus support

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EM Department Chairman

- Find out what the Dept needs
- Find out how to collaborate with other department chairs
- Find out how to collaborate with Dean
- Find out how to collaborate with CEO
- Examine ED clinical opportunities
- Examine outside clinical opportunities

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The Dean/College of Medicine

- Negotiate support for a new hire, some non-clinical time to write a grant, support for a bench lab, or a support staff person
- Negotiate an increase amount of ICR reimbursement to the EM Department
- In return, give him fodder for his reports and annual reports

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The Dean/College of Medicine

- Find out about support for a fellow
- Find out about Dean's office training grants that are in place
- Look at COM offices for advancement
- In return, educate other departments that need support or sit on the Dean's COM committees

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The CEO/Hospital

- See how clinical trials revenues can enhance hospital bottom line
- See if the CEO can support a fellow
- Understand ties to other departments and CRC
- In return, enhance ED support of hospital

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Business Manager

- See if you can understand the books
- Examine the hospital, COM support
- Know how the EM residency is funded
- Plan donors' account
- Collaborate on all grant and hires

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Research Director

- Make a list
- Figure out how the maximal amount of productivity can be achieved with the minimum amount of support, effort
- Reevaluate on a regular basis
- Meet with your EM Dept Chair often
- Support the Chair's annual report and bottom line

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Research Coordinator

- Determine what is the work priority
 - Their own work or yours
 - Grantmanship, research support, or presentations and publications
 - Clinical trials work
- Can assist with people, infrastructure, finances, motivation, idea generation, conducting the research, presenting and publishing the work, and staying

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Research Nurse

- Hire them for clinical trials
- Be aware that the salary is soft support
- They can take call or provide in-house support
- Negotiate with College of Nursing to support a position

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ED Head Nurse

- Talk to her about her interests and how your research can support the work of her nurses and the ED operations overall
- Talk about any nurses who are hired to train other nurses and their time, activities
- See if you can give in-services to help train and motivate ED nurses

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ED Operations Director

- Do research that surrounds the operations
- Turn QA, CQI into research
- Develop protocols that can be turned in research
- Determine how medical students who do research in the ED can enhance the clinical operations
- Understand how the electronic medical record can become a source of research

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ED Nurses

- Motivate them
- Educate them
- Offer part time jobs to them to do research and clinical trials
- Include them in the process

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ED Staff

- Utilize research funds to support the work that they do
- Finds ways to support their work

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ED Patients

- Look at what information they give you on a regular basis
- Follow-up on any success stories
- Make the enterprise worthwhile
- May generously support the mission in retrospect

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EM Attending Physicians

- Can you motivate them?
- Can you enhance their clinical practice?
- Will the research staff make their work more streamlined?
- Can the medical students help with data entry into the medical record?
- Do they want to take call and earn CRT?

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EM Residents

- Start with EM PGY1s
- Wrap a research project around each of their clinical questions
 - DDimer = 0.6...is a CT chest indicated?
 - Chest pain patients...what % receive heparin or are evaluated with cardiac cath
- Find out who want an academic career
- Go to EMRA

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Medical Students

- Go to the EM interest club
- Go to the Dean's office
- Go to the Hispanic Center of Excellence
- Find summer interns
- Employ students for a tuition waiver
- Go to AMSA

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Graduate Students

- Put up ads in the SPH or other academic department
- Hire those who can support computers, support research programming, and support statistical analysis
- Tie to tuition waiver

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EM Office Staff

- Ask them to do a quick PubMed search or print up the PDFs
- Do a dictation and have them type it up
- Ask them to set up meetings with you
- Ask them to take minutes from the meeting
- Make them a vital part of the process

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Institutional Review Board

- **Serve on the IRB**
- **Invite a member of the IRB to present at a staff meeting**
- **Have other research faculty serve on the IRB**

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Grants and Contracts Office

- **Obtain grants and contracts templates from the office**
- **Invite a member of Grants and Contracts Office to present at a staff or research meeting**
- **Provide a lecture to their staff, on the Exception to Informed Consent, for example**

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Animal Lab

- **Find out what kind of resuscitation research is being done by faculty who are using the lab**
- **Attempt to collaborate on their work with your staff**
- **This is a more easily facilitated collaboration**

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Clinical Research Center

- **Meet with the CRC director**
- **Find out if you can be a part of the the next grant**
- **See if EM projects can utilize the CRC**
- **Attempt to write CRC staff into your projects and vice-versa**
- **Tie into any training grants**

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Conclusions

- **This is excellent work**
- **With adequate support success is likely**
- **You must develop an imperative**
- **Processes are mandatory**
- **Constant upgrading and modifying of the approach is necessary**

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Recommendations

- **Do your homework**
- **Make sure there is a plan**
- **Make buy-in mandatory**
- **Create an imperative equal to clinical mission**
- **Constantly create support opportunities**
- **Go forth and prosper**

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**2007 Emergency Medicine Research Workshop
Success EM Research: People and Infrastructure Support
Edward P. Sloan, MD, MPH, FACEP**

Thank you.

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