

# TRAINING OF CLINICIAN SCIENTISTS

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*FACULTY OF HEALTH SCIENCES*

*UNIVERSITY OF WITWATERSRAND*

**PROFESIONAL  
TRAINING**

*Training in  
medical education  
and research*

PhD

*Subspecialty  
training or multi-  
skilled physician*

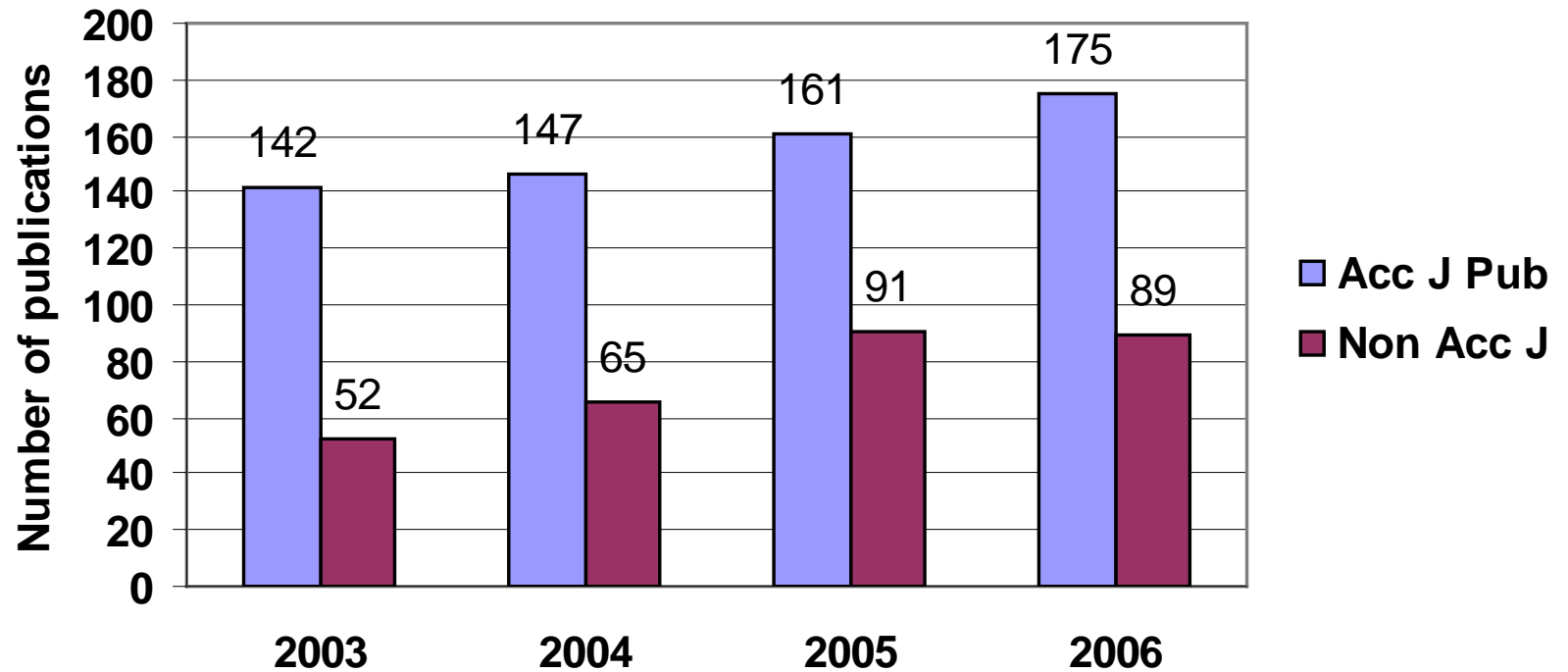
**ACADEMIC  
CLINICIAN**



**CLINICIAN  
SCIENTIST**

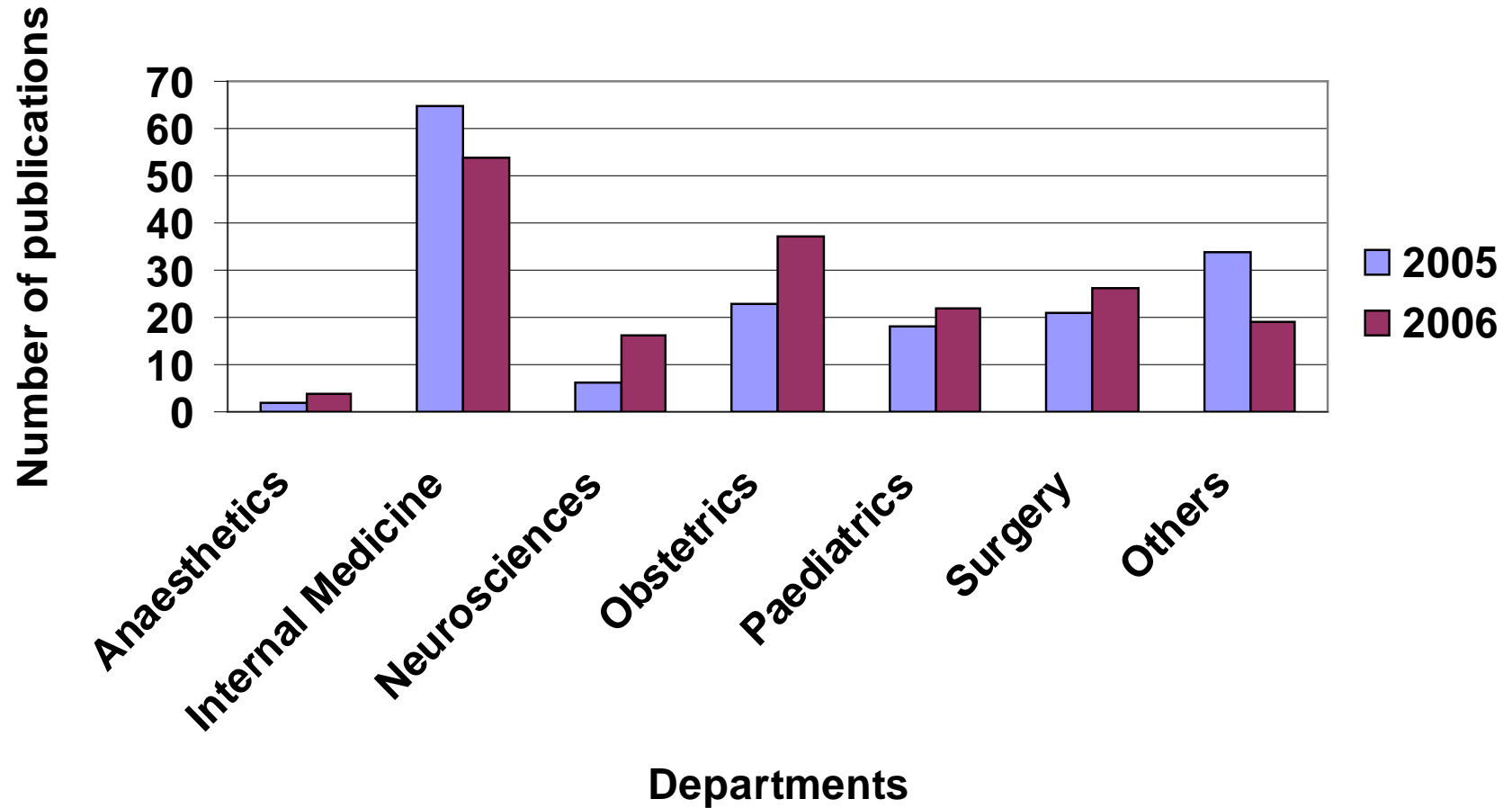
**CLINICIAN**

## Publications in the School of Clinical Medicine



Total number of accredited and non accredited journal publications

## Accredited publications in the School of Clinical Medicine



# OBSTACLES TO CLINICAL RESEARCH

- *SERVICE LOADS*
- *RWOPS*
- *RESOURCES*
- *DEPARTMENTAL CULTURE*
- *INCENTIVES (lack of an attractive career tra*
- *EXPERIENCED SUPERVISORS*

# INSTITUTIONAL CAPACITIES AND CHALLENGES

- *Wits SCM is currently a major centre for post graduate specialist and subspecialist training from South Africa and other African countries*
- *With the current research strengths, able to establish a formal structured training programme*
- *Existing clinical platform of approximately 6000 beds, large patient population, vast range of clinical problems*
- *Large number of clinically competent clinicians*
  - *Primarily involved in clinical work and teaching*
  - *Clinicians with a PhD and involved in service, research and teaching*
  - *A small group of clinician scientist involved mainly in laboratory and research.*
- *Clinical service loads compromising the time required for academic activities*
- *Lack of an attractive career tract for academic clinicians.*

# OBJECTIVES

- Establish a Division of Academic Medicine as a vehicle for the bringing of Wits and other African clinical practitioners into a scholarly environment
  - *Formalise Academic Medicine as division within the office of the Assistant Dean for research*
  - *Appoint a senior academic as Director to provide insight and guide the development of the Carnegie research and training initiatives*

# OBJECTIVES

- Increase the number of clinicians who complete a PhD and are qualified to teach and supervise research in an academic setting
  - *Recruit from the pool of post graduates who had completed their specialist or subspecialist training*
    - *To be relieved of service responsibilities through a scholarship for a two year period*
    - *To participate in departmental/divisional academic programme*
    - *To be granted unpaid leave from the service institution.*
    - *To participate in a structured formal PhD programme*



# OBJECTIVES

- Increase the Wits School of Clinical Medicine's training/mentoring capacity to support future generations of Academic Clinicians
  - *Develop health sciences educational skills*
  - *Postdoctoral fellowships in key research areas to extend supervisory capacity*

# CARNEGIE FELLOWSHIP TRAINING PROGRAMME

## 2011 - 2012

- **Programme Director:**
  - *Professor John Pettifor*
- **Courses and skills development (Year 1)**
  - *Research methodology*
  - *Research Techniques*
    - *Laboratory and microscopy*
  - *Protocol Development*
  - *Statistics*
  - *Scientific writing*
  - *Research ethics*
  - *Reviewing scientific literature*
  - *Teaching skills (Lecturing; class and small group teaching; assessment )*
  - *Research project management*

# COURSES AND SKILLS DEVELOPMENT (YEAR 2)

- *Data analysis and statistics*
- *Writing skills (Papers and thesis)*
- *Presentations and communication skills*
- *Teaching*
- *Grant writing*
- *Research and project management*
- *Personal academic development*
- *Academic networking*

# TIME LINES

- **First six months**
  - *Completion of research protocol*
  - *Assesors report and post graduate committee approval*
  - *Ethics clearance*
- **End of second year**
  - Completion of research and submission of thesis
  - Or Draft of thesis and final submission of thesis by the end of third year

# PROGRAMME SUPERVISION AND REPORTING

- *Supervisors to meet with fellows monthly*
- *Director to meet with each fellow and supervisor bi-monthly*
- *Supervisor to provide written report to director six monthly which will be submitted to Assistant Dean for research.*

# PROGRESS

- *Selected four candidates out of a pool of 11 applicants*
  - *Internal medicine – Rheumatology*
  - *Surgery – Ophthalmology*
  - *General Surgery*
  - *Internal Medicine – Cardiology*
- *Programme commenced in March 2011*
  - *Attended courses*
  - *Two Fellows well into their research*
  - *One Fellow about to complete protocol*
  - *One fellow completed pilot animal studies and about to commence*
- *All four fellows satisfied with the programme and are optimistic about completion within the allocated time.*

***THANK YOU***

# RATIONALE

- *Importance of clinical research*
- *Revitalise clinical research*
- *Develop the next generation of academic clinicians*
- *Regain our place as producers of high quality research on important clinical issues*
- *Increase supervisory capacity around existing clinicians*
- *Developing teaching competence*



# CLINICAL RESEARCH ENTITIES

- *Medical Entomology and vector control*
- *Vaccine Preventable diseases*
- *Cardiovascular Pathophysiology and Genomics research unit*
- *Mineral metabolism unit*
- *Carbohydrate and lipid metabolism unit*
- *Pulmonary infection research unit*
- *Antiviral Gene therapy unit*
- *Bone research unit*
- *Rheumatic disease research unit*
- *Cell biology unit*
- *Nephrology research unit*
- *Ophthalmology research unit*
- *Reproductive health research unit*
- *HIV research unit*
- *Perinatal HIV research unit*