STATENS SERUM INSTITUT’S
COURSE ON GOOD
SCIENTIFIC PRACTICE:
WHY, HOW, WHAT?

Nils Axelsen, MD, D.Med.Sc
Ombudsman for Research Integrity
Statens Serum Institut
Copenhagen, Denmark
na@ssi.dk
WHY DID I TAKE THE INITIATIVE TO TEACH?

• Only a few people at my institution know the definition of scientific dishonesty, how damaging dishonesty can be, and how thoroughly allegations are investigated.

• Only few the existence of the Danish guidelines for Good Scientific Practice (GSP/RCR), and almost none, even the brightest researchers had read and learned the guidelines.

• So far no formal systematic training in GSP exists in Denmark, even if the Danish Committees on Scientific has written about it for many years.

THUS THERE IS LARGE UNMET NEED AT MY INSTITUTION AND GENERALLY IN DENMARK.
HOW DID I START?
• I made a solid platform as ombudsman, with a job description comprising responsibility for training all the institutions researchers in GSP/RCR for demonstrating ‘proof of principle’
• Secured a strong back up from our CEO

WHAT IS MY BACKGROUND FOR THIS?
• A long life in medical research, including various leading positions
• Co-founder and member of the Danish Committees for Scientific Dishonesty (1993-2005)
• Membership of some large grant giving commissions and foundations
THE TARGETS AND THE AIM OF THE COURSE

• The first targets are all the young researchers, ph.d. students and young postdocs
• The next target is mentors/department heads. As I secretly thought my so far 70 young pupils have made the mentors/leaders a little anxious and they now ask when I am ready to teach them
• The goal is firm integration of GSP/RCR in the daily work, with the mentors/leaders having an enlightened responsibility, so that GSP/RCR is not just only words for window dressing
• A further goal is to speed up the universities by this example
THE FORMAT

• Seminars for 8-10 trainees, 5 sessions over 14 days
• I am present at all sessions
• Most topics are presented by the trainees based on material handed over at first session
• For each session/topic I call on one or two seasoned prominent university professors. Their is easy, They shall only discuss the presentations with the trainees and provide their own extensive experience,
• Importantly the CEO participates in an hour in each course
TOPICS

• The history of scientific dishonesty/misconduct
  - Stories about a handful key cases
  - The turmoil: reactions in the scientific community, political reactions, OSI/ORI, Danish experiences and in other countries, public trust in science and other walks of life

• The world of science
  -- What constitutes a god scientific paper?
  -- The role of science in modern society
  -- The growth of number of researchers, publications, journals, authors, funding. Big science, EU’s role. Denmark’s role (1%) and its ambitions and options in this (realistic) turbulent picture. Our institutes’ role
FULL REPORTS FROM TWO CASES OF SUSPECTED SCIENTIFIC DISHONESTY
- The Sudbø case
- A case of wrongful allegation
- The cases vividly illustrates the need for GSP/RCR

PSYCHOPATHY
- Not for presentation by the trainees. Is handled very carefully, requires psychiatric insight, but is relevant. Up til 10% of the population has psychopathic traits (without being psychopats)

THE LARGE GRAY ZONE
- Based on data from Melissa Anderson et al

THE DANISH GUIDELINES ON GSP
- They are rather detailed, and discussed thoroughly
• DRAMATIC PLAY ABOUT AUTHORSHIP (Macrina)
  - Very useful and highly entertaining as background for a detailed discussion about the Vancouver Rules
  - Povl Riis, co-author of these rules participates

• THE TEN MOST IMPORTANT THINGS TO KNOW ABOUT RESEARCH ETHICS (Pimple)

And finally
• HOW TO
  - Use the ombudsman
  - Implement GSP/RCR in daily life
  - Be updated
DOES IT WORK?

• Yes, it has so far been a major eyeopener for my pupils.
• They appreciate very much the small setting, and the opportunity to talk with the famous professors who are sharp, wise, funny, and show humility.
• The CEO’s participation is good and relevant.
• The trainees spontaneously say that they feel much more equipped for life in science than before, and they think this course should be mandatory for all ph.d.s.
• The many data from the medical science world taught by seasoned medical scientists are relevant and a good introduction to spotting and handling relevant ethical problems in the trade.
• The ombudsman and his mission is made visible.

WHAT DO I NEED?

- A strong network of wise RCR-teaching colleagues.