## Can research institutions live up to expectations?

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The Sudbø case is a tragedy for all involved but also represents a thought provoking event of great potential value. The investigations set in motion have pointed out a number of measures that either are lacking or where practice of existing rules and regulations must be improved. These actions will lead to a better, more stream-lined and quality - based research education. The most difficult problem in the wake of this scandal is to find the point where control is sufficient to secure quality, but not so heavy-handed that it represents a hindrance to research. I have expressed doubts as to whether we have found this equilibrium yet. So far, university and hospital have faced this scandal backto - back and with considerable success. Only the future will show whether we will reach the right balance between control and preventive measures, where I have declared myself clearly in support of actions dominated by preventive measures. Rigorous control systems will lead to less research, less joy, more frustration, much higher administrative costs and probably not better research. We will never manage to root out fraud by control, but we can improve quality considerably and prevent some researchers from temptation to make shortcuts.

The Sudbø case deals with a man who at a point decided to fabricate scientific data and subsequently published them in high-ranking journals. He made elaborate manoeuvres to evade control agencies such as the Regional Committee for Medical Research Ethics, The Data Inspectorate and The Board of Health. Eventually his fraud was disclosed, but many have asked why it took such a long time to discover what was going on. The Ekbom commission (1) showed with painful clarity that a number of people failed to do what was expected of them. Sudbø's supervisor believed blindly in his research scholar who collected astonishingly large and complete data in a hurry, a number of co-authors took their responsibilities too lightly, and the few with a gnawing suspicion afterwards admitted that they avoided the whistleblower position. The commission also uncovered a number of weaknesses in the prevailing set of rules related to research in the involved institutions. Sudbø was not employed at the university while he committed fraud. However, he worked as a research scholar in one of the four university hospitals in Oslo and parts of his PhD defended at the Medical faculty was apparently based on fraudulent research. For these reasons the University of Oslo and the university hospital in question decided from day one to deal with the Sudbø case as a common problem.

So, what to expect of us? How did we handle the situation? First I must make some reservations. I present my personal view and not necessarily the position of the University of Oslo. Secondly, the mopping-up operation initiated by the university is still not finished at the time of writing. Thirdly, in Norway also the hospitals are by law imposed to perform research. A number of similar measures to prevent scientific fraud have been initiated or are in planning in hospitals. These I will not comment on. The main actions taken at the University of Oslo after the irregularities were discovered and Sudbø had admitted to fraud, were the following.

- 1. The Rector decided that the handling of the personal matters should be delegated to the medical faculty.
- 2. Sudbø was within weeks invited to resign his post and did so without preconditions.
- 3. The University of Oslo and the university hospital jointly appointed the Ekbom commission (1) which within 5 months concluded that the scientific fraud involved more articles than Sudbø had admitted to, and also included papers that were part of his thesis which he had defended successfully in 2001.
- 4. The medical faculty subsequently appointed a special adjudication committee given the mandate to investigate whether Sudbø's PhD thesis contained fraud. The committee came to the same conclusion as the Ekbom Commission.
- 5. The University of Oslo in parallel appointed seven working groups with a mandate to look into all aspects of quality assurance related to research, including the role of supervisors and existing rules and regulations relevant to the case.
- 6. In December, 2006, approximately 11 months after the fraud was revealed, the Faculty Board of the medical faculty decided unanimously that Sudbø should lose his PhD and that his PhD diploma should be returned to the University of Oslo.

I still remember how quickly a number of people both inside and outside the university decided that they knew enough to call for a number of strict control measures for research in general based on the Sudbø's admittance of fraud. The Sudbø case is indeed a serious and painful experience for the university, and I have no problems with taking full responsibility for a number of the weaknesses discovered. Still I found several of the demands for stricter control short-sighted and potentially harmful for research. My first reaction was to underline that the results of a very thorough and independent investigation had to be made public in order to regain the trust of other researchers and society at large. But I also made it clear that one of the main duties of a dean is to stimulate my colleagues to research of good quality. It should not be the goal of a research institution to do whatever it takes to hunt down fraud. I decided rather early on that apart from ensuring that research is done in accordance with rules and regulations, positive preventive measures are better than controls that have never proved to be a creative measure.

This balancing act between control and preventive measures is in my opinion still the most challenging problem in the wake of the Sudbø case. The University of Oslo initiated a rather large mop-up operation and similar efforts were set in motion at the university hospital. We still have not seen the full impact of this operation, but a preliminary listing of recommended measures is shown in Table 1.

These proposals represent wall-to-wall responses to the various deficiencies met, but are they helpful in the long run? Rules and regulations do not stop persons who have decided to cheat. A handbook where everything can be collected is a fine idea, but who shall revise it? And concerning expectations: who is formulating them? There are no doubt differences between what research scholars expect and what authorities having the power to give or withhold grants would prioritise. I would think researchers in training for their PhD want better training courses in methodology and science philosophy, easier access to data and above all: experienced supervisors aware of their responsibilities and with ample time to guide the candidates and prevent them from falling into research-ethical potholes. On the other hand we have representatives of the research authorities - mainly hospital and university administrators, high-ranking persons in ministries and research foundations who recommend that research institutions must have a clear overview of and control over all research projects and impose a number of obligatory courses on research scholars, supervisors, and project leaders to ensure that all regulations are met.

This difference in priorities should not surprise anyone, but it puts decision-makers in a delicate situation. The higher up in the pyramid of

Table 1. Recommended measures at the University of Oslo after the Sudbø case

Handbook for research

Course for project leaders

Necessary permits granted

Overview and control with research projects

Certified protocols

Traceability from published to original data

Storing of research data

Enforcement of Vancouver rules of authorship

Obligatory course for research scholars

Course for supervisors

Agreements regulating university/hospital cooperation in research

Commission of research ethics

Ombudsman for research

power you come, the clearer the responsibility issue comes in focus. No one will disagree that compliance with law and regulations is to a dominant degree an institutional system and management responsibility. This is in full accordance with the Nylenna committee's report (2) and has received full support by the university. Thus it came as no surprise that within hours after the Sudbø case became public the news media asked who was responsible for this mess and for good reasons. It is in the implementation of necessary measures that we must balance control and prevention. For example, rumours have circulated that it would be recommended that all manuscripts must be read and accepted by department heads before being sent to a journal. This, and similar measures like it, would indeed make research more difficult than it already is, and represent an unacceptable encroachment on academic freedom. A listing of all projects within an institution is perhaps not very useful as a control measure and invites for more administrative work. Are obligatory courses for supervisors a smart idea, or a way to discourage interested researchers?

I see no reason why administrative demands for overview and control can not be reconciled with core values of academic freedom. One has to distinguish between the research institutions' responsibility for development of an environment where research can take place within the scope of good ethical practice, and the demand for an exciting and creative atmosphere within a research group where project leaders and supervisors can accept and set in motion new projects or submit papers without waiting for a nod from an administrative head.

So, where are we a year after the Sudbø case broke into the open?

Do we agree on how to handle the situation or have we experienced a rift between persons, institutions, and authorities? I am pleased to state the fact that so far the involved research institutions have tackled the situation in full accord. We jointly appointed the Ekbom commission, accepted its conclusions and have been busy implementing the necessary revisions afterwards.

But some problems remain as described above. My recommendation is a balanced regimen favouring preventive measures like:

- more emphasis on the supervisor/mentor role,
- better theoretical training courses including more information on the rules and regulations that researchers must follow,
- improved possibilities for research scholars to present their projects for research groups and
- commitment of all authors to the Vancouver rules.

One task remains: the scientific institutions involved must as soon as possible harmonize their rules and regulations in order to avoid researchers working in university hospitals having to cope with two systems.

## References

- 1. Report from the Investigation Commission appointed by Rikshospitalet Radiumhospitalet MC and the University of Oslo January 18, 2006. Oslo: Rikshospitalet - Radiumhospitalet MC/The University of Oslo, 2006.
- 2. NOU (Norwegian Official Reports) 2005:1 Good Research Better Health. Act relating to medical and health research that involves humans, human biological material and health data (the Health Research Act).

Stein A. Evensen Dean The medical faculty University of Oslo PO Box 1078 Blindern N-0316 OSLO Norway s.a.evensen@medisin.uio.no