

Ethics, Transparency, Research Integrity, Misconduct

Where Do Marie Curie Alumni Stand?

Brian Cahill (MCAA Chair)

MSCA at ESOF 2016, Manchester, 28/07/2016



Marie Curie Alumni Association

- More than **70 000 researchers** have benefitted from MSCA
- Over 7 000 have joined Marie Curie Alumni Association since November 2013



Join MCAA at www.mariecuriealumni.eu

Marie Skłodowska-Curie (1867-1934)



Research Integrity Scandal during my PhD

- I was PhD Student at the Nanotechnology Group of ETH Zurich between 2000 and 2004
- The Jan Hendrik Schön scandal broke in 2002
- Jan Hendrik Schön was a postdoc at Bell Labs in the field of nanotechnology who published almost a paper per week for a whole year in 2000/2001 – many in Science and Nature
- A large part of his data was manipulated
- His original supervisor at Bell Labs, Prof. Dr. Bertram Batlogg, had been appointed professor at ETH Zürich in 2000 and was eventually cleared of any wrongdoing



Media Response

Bell Labs launches inquiry into allegations of data duplication

2.00

Goolf Bran fiel, Washington

One of nanotechnology's tising stars,'s under investation following datase data in some of his parents have been filled. has Hendrik Schör, a researcher to Edit Less in Marry FE. New Jeney faces an independent insular after climitate policid. suiding similarities between different provins. in a sumber of his published separa. Solds don't for all actions, in , if the uphild, many researchers are searcied

inout the damage that could be done to have meaning activities of Roll Labs, participathe

Is of the duplica- Malican and others turned up a total of sight-reled that Schon - figures in six parters that append to contain aid that he had suspect data, the researchers say. In one case, average back

up is in Science 3: If and Associated some researchers to question the data

Misconduct finding at Bell Labs shakes physics community

entitiennikel, Westin-don

Physicists are coming to terms this week with one of the most addedote scientific fronds or anovarod Thereazadain custion was all goal cases of a lists due that it looked at, period out at one of the same dispert-known industrial laboratories and published in tapjournals - including this one (see editoria)

state ment or page 427. An independent committee charged to th inding work form by Jr. - For for Schorat 3dl Laboratories in Murny Hill, New



Inters teleand its first meson It found a "prepondening of of evidence" that he faldified or fabricated data in 16 of the 24 mething to prohibled meaning aperts. "Hendrik Schon showed reckless diste

gard for the sanctity of data in the value system of science," said the report of the committee, which was chained by Malcolm Service, an electrical engineer at Stanford University in California, Belliabs percof selecommunications corporation Locate ---al Schuttle conjugation the find as were released, but the affermistic from erewith physicists asking not only what could have been done to present the frand, but also what will become of more than 100 papers

at School archeved since arriving at Bell tom Germany in 1958. In a statement accenterations the report. ideorschnikedtomaking mitskar behald seehing and his findings adviced the in here.

Paul Grant

Dark d sade out 5dy becca to cather over the

exceptional finding of superconductivity at

and collaboratory at Hell Laboratories in Mar-

ray Hill, New Jeney, Shortly after publication

offbaration. I was associate water of

my repression as a sorrical observer of

1.7 % reported het your by mendale Schön

Scher



the wake of retermilic misconduct vertice. single molecules and induce superconduct tivity in cubon "indyna"s and him

Is a bell tolling for Bell Labs?

It would be wise of Bell labs to help others reproduce their scientists' results

Bell Labs inquiry spreads to superconductors

Geoffbrumitet Weshington

to include three important papers on superun Jaufaity sublidied in Nation. The additions to the investigation, which

is being conducted by a panel chained by Malazim Beadey of Scienterd University in Colliensia, have plarmed physicists, decenof where have been engiged in efforts to Labe, the sees toughtimes ahead for the lab-replicate due aperconductivity work. In success "When put comes to during when The experision is the occurring trapidation

at Dell Labs in Marray I.21, New Jensey - its struggling owner, Lucent Technologies, lost a Lindolia creacy-data idea statemahet valuation last week (set graph, right), as involors reader to news of a realt-ballion

thermal events ration of all and share, the back

ground pressure of the system is in the source

10"" mage others water wapout is the major

component. The presence of aluminization

hydroxide in plasma deposited films of ele-

ming her hom documented (. M. Schneider

et al April Phys. Lett. 74, 200-202; 1999) and

is a source of source of the concern root the variability 5ch on reports in sample yield and

haved mariest analyst firm. "Many of these companies inducing laters, are fining withbaricupacy."

David Farber, a producer of telecommu-nications at the University of Parasylvania. Philadelphic-endla herror researcher at Bel eratory. "When pair contex to dame, what de you sterifize first? Bescarch," he says. But

commentary

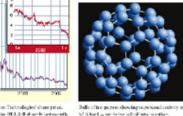
any time scon. 'The telecommunications As investigation in a gradille data blokas stator is adding down? says Son. Olda di will data basente or observer alses over its best of the 2 years of Croup, a Wakington business, will need research to say competi-

fasher doesn't believe then the laboratory the in the long run, he says. Samite Dava spokenna, he Bel Lala

news

expressed optimismations the future of basic research there. "We positivue to be excernit ad to creating the nast-generation techtologici to make our company subsce he says. "Physical sciences research will be a esanticlosuperantel LAC 1, S.M.J.R. Ho, C. & Dates, J. Nucl. 45, 98-102

A MARK & PALINGWEART RELATED 1. WHERE IT HAS SERVED AND TRACKS



Balls of ire poper showing superconductivity 52.5 km Laster bring call of interpretion

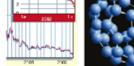


Image from http://archiv.ethlife.ethz.ch/e/articles/campuslife/faelschungendiek.html



Responsibility

Such scandals indicate failure on many levels

- Individual Researcher
- Co-authors / Supervisors
- Employer / Institution
- Funding Agencies
- Journals / Peer Review Process
- Education System / Training



ETH Response

- ETH set up a working group in 2003, including Nobel laureate Richard Ernst, to formulate guidelines for research and regulations on procedures in cases of scientific misconduct.
- ETH introduced "Rules of Procedure Governing Allegations of Scientific Misconduct at ETH Zurich" in 2004.
- All researchers received copies of the paper "The Research Culture at ETH Zurich" and the brochure "On being a scientist".
- ETH launched a series of events under the title of "Debating Science Culture" to encourage critical self-assessment.

Details from http://archiv.ethlife.ethz.ch/e/articles/campuslife/faelschungendiek.html

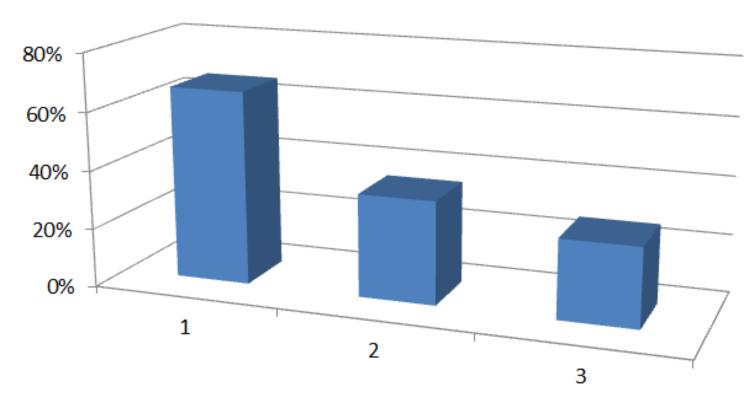


Responsible Research in MSCA

- "Principles of research integrity as set out, for instance, in the European Code of Conduct for Research Integrity – will apply throughout all Marie Skłodowska-Curie Actions".
- Emphasis on Responsible Research and Innovation in H2020
- MCAA recommends providing compulsory training in research integrity to all who benefit from MSC grants:
 - fellows,
 - principal investigators and
 - coordinators.



MCAA Survey



1 - I am aware of the issues related to Research Integrity

2 - In my career I have met situations that could have lead to Research Misconduct

3 - In my career I have witnessed Research Misconduct



Conclusions

- Excellence in science is directly related to excellent research conduct.
- Not providing appropriate training will eventually result in high costs to Europe
- MCAA offer to provide access to the online research integrity courses of Epigeum received a strong response from our members
- We propose that the Commission should devote an annual budget of circa 200k€ to provide training to all new beneficiaries.