

## **Advancing Women's Careers in STEM**

### **What can we learn from recent Cambridge experience?**

Summary of the gender situation in the University of Cambridge

Brief personal history

Progress 2011–15

Getting men involved

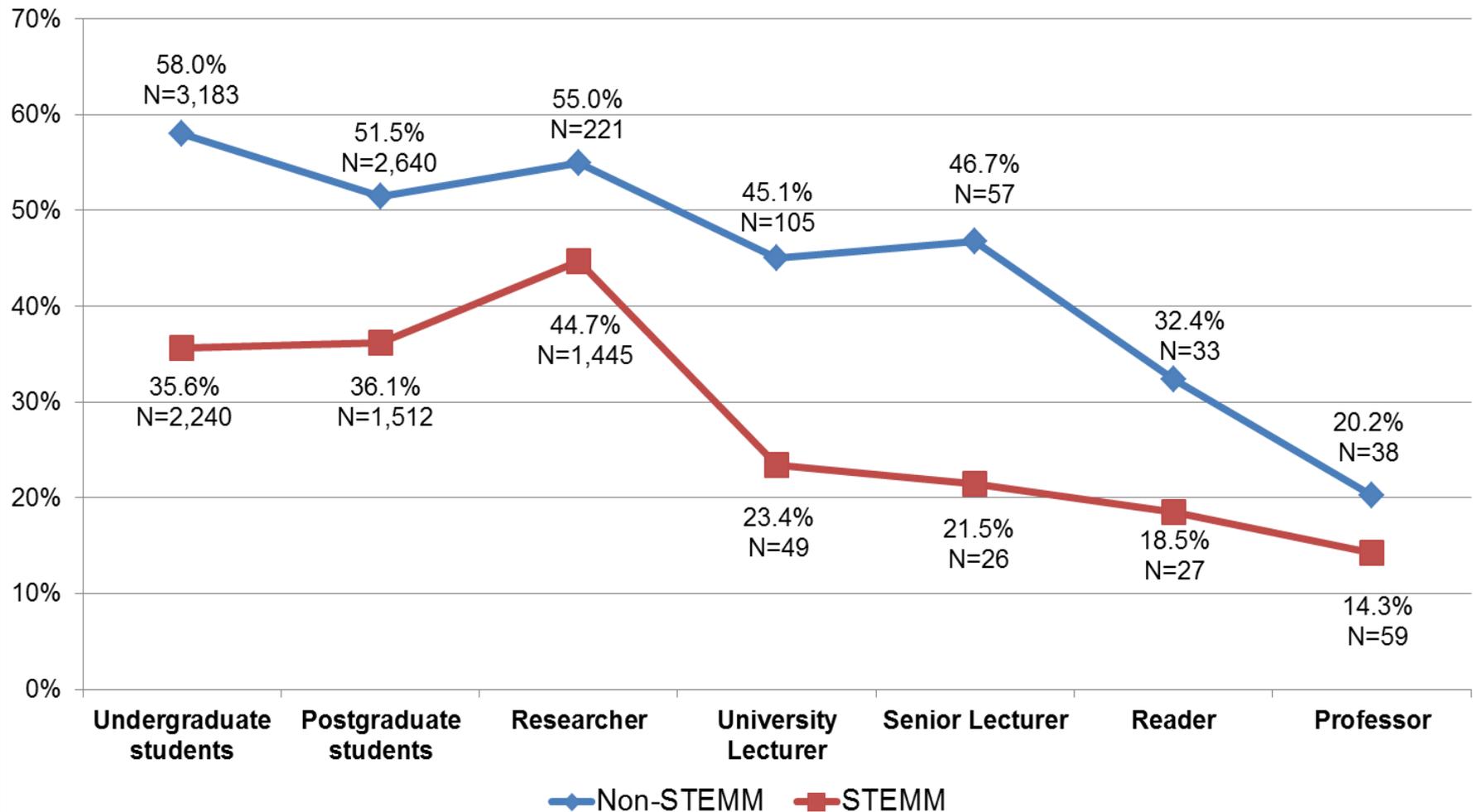
**Jeremy Sanders**  
**University of Cambridge**



# University of Cambridge

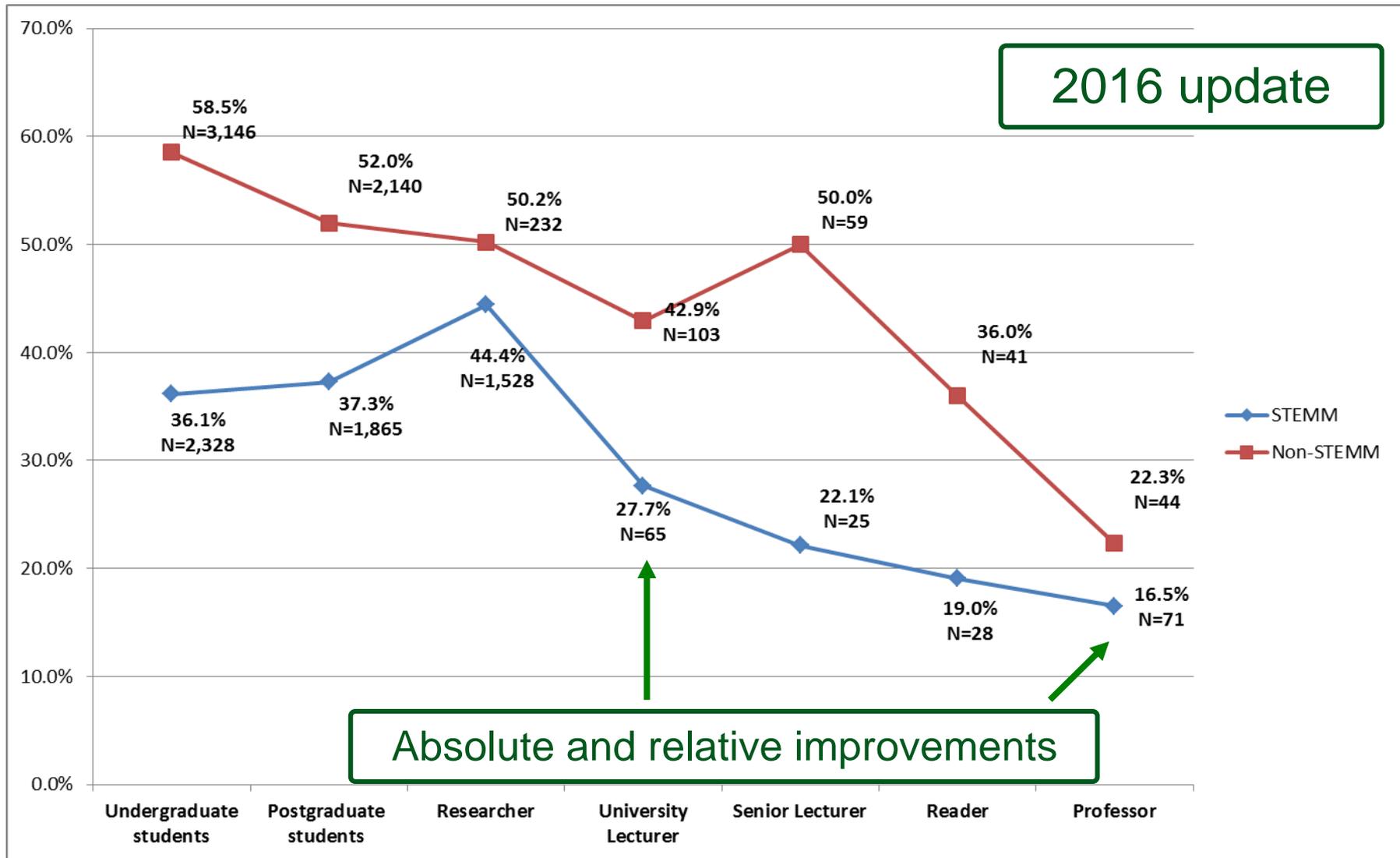
## *The leaky pipeline*

The Proportion of Women Across All Career Stages (2014)



# University of Cambridge

## *The leaky pipeline*



# A Closer Look at the Pipeline

- A small proportion of senior staff are female
- Gender pay gap at very senior levels **partly imported**
- Women historically less likely to apply for promotion
- Women less likely to lead large grant applications or research consortia
- Women less likely to apply for competitive fellowships or academic positions

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- Women less likely to apply for competitive fellowships or academic positions
- Women less likely to study maths and physical sciences at university
- Girls less likely to study maths and physical sciences at school
- Even at age 6, girls are more likely to see themselves as nurses and boys as doctors
- Gendered toys, and family expectations

**Not just a Cambridge problem, but more acute here,  
partly due to very low turnover of academic staff**

# Policy vs Culture

## Institutional and national policies

- Equalities legislation
- Parental leave
- Training for awareness
- Gender-balanced appointments committees
- Fair workload models
- Athena SWAN pressure for NIHR renewals

## Cultural attitudes

- We are already the best – why change now?
- It's a tough international competition
- It's a woman's problem and her choice
- I am a successful woman and nobody helped me...
- Women are better at the nurturing roles
- Unconscious bias

# Personal History

- 1920s Parents were children of Jewish East European immigrants
- 1930s Parents sent to work aged 14 despite scholarship awards
- 1941 Parents married, age 19
- 1948 JKMS born. Lived in “House of Multiple Occupation”, Hackney  
**Women first became members of Cambridge University!**
- 1954 Moved to council estate in London SW19
- 1959–66 Attended Wandsworth School — pioneering comprehensive  
**No access to Cambridge or Oxford**
- 1966–69 Chemistry BSc, Imperial College  
**No interest in sport or drinking**
- 1969–72 PhD student, Chemistry, Cambridge
- 1972 Married Louise **Cooking and ironing.....**

# Personal History

1972–73 Postdoc, Pharmacology, Stanford, USA

1973 Appointed Demonstrator (= Asst Lecturer) in Chemistry, Cambridge

1977–8 Son and daughter born

*1980s, 90s Louise was lab technician at Addenbrooke's Hospital  
I frequently had primary childcare responsibility*

*In evenings went back to lab to be with research group and  
also wrote a textbook*

1995 Elected FRS

1996 Professor

1997 Deputy Head of Dept

2000–6 Head of Dept

2007–15 Chair, WiSETI (Women into Science, Engineering and Technology Initiative) led by Athene Donald

2006–9 Led University's 800<sup>th</sup> Anniversary celebrations — a year-long party

# Personal History

2009–11 Head (= Dean), School of Physical Sciences

*£38M annual budget, almost 20% of academic University*

2011–15 Pro-Vice-Chancellor for Institutional Affairs

*Leads policy and strategy thinking*

*Advocacy and leadership role relatively new to Cambridge*

*No money!*

# Overall responsibility as PVC

- Human resources  
11,000 employees
- Environment and Energy  
£16M annual energy bill
- Local and civic engagement  
Managing University's local relationships  
Involved in long-term City planning
- North West Cambridge Development  
Tackling unaffordability of housing

# Major human resource challenges in 2011

- Permanent “Established” staff have tenure to retiring age
  - Performance management not accepted
  - Leadership and authority not universally accepted as concepts
- Retaining a retirement age of 67
  - Compulsory retirement abolished nationally in 2012
  - Helpful to retain in Cambridge to ensure a flow of new younger talent
- Uncompetitive pay rates
  - Difficult to recruit and retain at all levels — housing unaffordability
- Gender matters
  - Too few women entering academic roles
  - Too few women being promoted to Reader and Professor
  - Male–female pay gap at higher end
- Postdocs became the largest staff group in 2012

# The Sally Davies Challenge

*From the Chief Medical Officer  
Professor Dame Sally C Davies*



*Richmond House  
79 Whitehall  
London  
SW1A 2NS*

*29 July 2011*

Professor Tony Weetman, Medical Schools Council  
Sir Ron Kerr, Association of University Hospitals  
Sir Steve Smith, Universities UK  
Professor Michael Arthur, The Russell Group  
cc Katie Petty-Saphon and Wendy Piatt

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Dear Tony, Ron, Steve and Michael

# The Sally Davies Challenge

When questioned, the NHS Trust responses were generally OK. However, the Medical School responses varied from excellent to frankly appalling. I was embarrassed on behalf of our nation to hear some of the responses.

I now write to tell you therefore, that when we next run the competition for NIHR BRCs and BRUs we do not expect to short-list any NHS/University partnership where the academic partner (generally the Medical School/Faculty of Medicine) has not achieved at least the Silver Award of the Athena SWAN Charter for Women in Science. The present funding period of five years that we are about to enter gives both those who are funded, and those who are potential entrants next time four years to demonstrate this level of commitment to women in science.

When we announce the present successful awards we will ensure that our website highlights this as a condition for short-listing for the next funding round. We will also put it in our final award letter for this round of BRCs/BRUs but it would be very helpful if, through your networks, you could make everyone aware now so that they use this period of time to get the Athena SWAN Silver Award in place effectively.

**At the time, Cambridge had a £114M NIHR grant**

# The Sally Davies Challenge

*An opportunity, and a response*

Obtained major resource for Athena SWAN activities

5<sup>th</sup> University to receive Silver Award (2015)



## Some General Principles

Women tend to be more adversely affected than men by poor management and governance

So...

Women tend to be more favourably affected than men by improvements in management and governance

Therefore:

In general, initiatives and schemes should be devised that are open to everyone

# Gender Actions

*Partly stimulated by Sally Davies Challenge*

- Revised Senior Academic Promotions processes and criteria to raise profile of teaching and administrative contributions, reduce barrier for part-time applicants and encourage **everyone** to declare caring responsibilities
- Invited all eligible staff to new Senior Academic Promotions workshops; made Heads of Department responsible for interviews with all eligible staff  
**In 2015 same proportion of eligible women applied as men, and with same success rate**
- Devised Returning Carers Scheme, and obtained £300k p.a. funding to support return to research after leave for family responsibilities  
**Being emulated at other universities**

## Other Positive Gender Outcomes

- Fixed retirement age is slowly improving academic gender balance
  - Over 80% of those retiring from established posts are male
  - “Only” 65% of new appointees are male
- Stronger instruction and training for appointments committees
- Record of senior female administrative appointments is improving
  - Registry, Estate Management, Academic Division, HR, North West Cambridge
- Equal parental leave rights for women and men
  - But getting men to take them up is a cultural challenge

# Senior Academic Promotions

- In Cambridge are budget-limited
- Some who are deemed to be suitable for promotion fall below the line and are unsuccessful

# Senior Academic Promotions

*Increasing the proportion of women who apply*

- Invite all eligible staff to a workshop/forum led by PVC with the aim of explaining the process and debunking urban myths

*At least one attended by lecturer and her breast-feeding baby*

- Tell every HoD (or senior colleague) see every eligible member of staff

*Encourage reticent staff; discourage premature applications*

- Feedback to unsuccessful staff to be given **by the same individual**

*Encourages realistic and honest advice*

- Very high success rates in Schools where there is tradition of strong, well-informed and respected HoDs

# Senior Academic Promotions

*Increasing the value of non-research activities*

- Numerical scoring system that explicitly recognises Teaching and General Contribution and includes a threshold score for each

Should make a fairer system

# Senior Academic Promotions

## *Consideration of additional circumstances*

- Confidential disclosure to HR only of nature of circumstances which mean that individual is unable to contribute in full to the academic enterprise
- Explicit consideration by SAP committee of quality vs quantity of published research
- Feedback to unsuccessful staff to be given **by the same individual**  
Encourages realistic and honest advice

# Returning Carers Scheme

2013

- Offers funds to assist returning carers in building up their research profiles and academic activity after a period away from work  
[www.admin.cam.ac.uk/offices/hr/policy/carers/](http://www.admin.cam.ac.uk/offices/hr/policy/carers/)
- Piloted in 2012/3 in 2 STEMM Schools,  
University-wide scheme introduced in August 2013
- £300k p.a. available
- Individual grants normally up to £10k each

# Returning Carers Scheme

2013

- Tailored to the needs of the individual, e.g.
  - support for carers (family or professional) to travel to conferences
  - inviting collaborators to Cambridge
  - technical and teaching support
  - equipment and start-up funding for new projects
  - eligibility up to 5 years after return to work

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  - equipment and start-up funding for new projects
  - eligibility up to 5 years after return to work
- Applicants need reasoned support of department head or faculty chair
- Prioritisation by School
- In first 9 rounds: 249 grants approved from 343 applications

# Returning Carers Scheme

2013

96% applicants female; 4% male

25% of successful applicants are academics; 72% postdocs

Some repeat awards

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## Distribution

Biological Sciences	84
Clinical School	57
Physical Sciences	36
Arts and Humanities	25
Humanities + Soc Sci	22
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*Some promotion applications explicitly mention the career value of the RCS in catalysing the re-launch of research*

# Returning Carers Scheme

2013

Applications now require detailed letter of support from Head of Department

*An unexpected benefit:*

*Raising the profile of work–family interactions with mainly middle-aged males, forcing them to think about such matters*

In retrospect:

This new institutional policy supports and validates employees' decisions to combine work and family life

*and*

Is beginning to raise cultural awareness and sensitivity amongst managers

# Celebrate Success

## The Meaning of Success



Insights from  
Women at Cambridge

Book published 2014

Celebrates 26 women chosen from 134  
nominated by their peers

Includes administrators and secretaries as  
well as academics

Some were interviewed by the BBC's Jane  
Hill at a launch event for International  
Women's Day 2014

> 175,000 web views

Successful women at Cambridge value a  
broader spectrum of competencies,  
opportunities and rewards

# Advancing Change through National Engagement

- First University to sign up to the 30% Club (now 42 HEI members)
- Stimulate national debate

Call for academia to do more to support female progression



More than 50 senior members of staff at the University of Cambridge have called for a rethink on how success is valued and measured in academia so that women are not disadvantaged in academic appointments and promotions.

Senior members of the University of Cambridge are calling for a debate on gender progression within the higher education sector.

In a letter published today (20 February) in the [Times Higher Education](#), more than 50 Cambridge staff – among them heads of colleges and departments – appeal for a broader and more inclusive approach to academic appointments and promotions so that talented women stand a better chance of progressing to senior positions.

“There are opportunities to reward and embed different types of success, such as teaching, outreach and departmental support.”

— Professor Dame Athene Donald,  
Gender Equality Champion

*More than 50 senior staff members ‘who believe that more should be done to broaden how we judge and value success in UK higher education’ were signatories to a **letter to the Times Higher Education (THE)**<sup>1</sup> in March 2014. In a call to the sector, the letter aims to stimulate debate so that gender progression remains a priority at the highest levels within the sector.*

*‘A broader definition of success within the sector will bring benefits not only to women – and indeed men – working in universities, but also to society as a whole’*

<sup>1</sup>[www.timeshighereducation.co.uk/comment/letters/promoting-gender-balance/2011428.article](http://www.timeshighereducation.co.uk/comment/letters/promoting-gender-balance/2011428.article)

# There is still much to do

## *Part-time working*

After parental leave, or due to long-term health problems of employee or family.

Vital to recognise the value to the institution, individuals and family, and to account for it properly in promotions.

# There is still much to do

## *Advice and mentoring*

Men tend to apply for promotion too soon; women tend to apply too late. Informal “old-boy”-type mentoring reinforces this behaviour.

Mentoring and honest and well-informed advice are crucial. Not essential for women to be mentored by women, or men by men.

## There is still much to do

### *Administrative and nurturing roles*

Senior leaders tend to turn to women first when there are admin and nurturing roles to be filled. And women are more likely to say yes.

So leaders need to be more even-handed in their search, and women need to be stronger in saying “No — ask a man”

**There is still much to do**

Unconscious bias

## Some questions for every organisation

To what extent are we genuinely committed to becoming more inclusive?

How can we define, measure and reward success more effectively, without bias, reducing the emphasis on size?

How can we reframe the debate away from 'women's issues' to talk about equitable, effective, modern workplaces?

What policies, procedures, training, metrics and systems can we improve in order to accelerate progress?

How can we encourage the emergence of more diverse, visible role models to help bring about real change?

How do we get more senior men involved and committed?

# Why me?

## Feeling like an Outsider, but operating from Inside?

A non-religious Jew at an 800 year-old university founded as a set of male-only monasteries with Michaelmas, Lent and Easter Terms

On sitting round senior management tables for the first time, I felt excluded from, and shocked by, “the boys club”:

*Sport and drink as bonding mechanisms are not appropriate vehicles for serious decision making*

It is easier for an Outsider to see what is wrong and to try to put it right

It may be easier for men to lead the fight for gender equality. But how do we avoid men seeming to be in control of this agenda?

# Acknowledgements

Sir Leszek Borysiewicz FRS FMedSci

Vice-Chancellor 2010–17

Dame Athene Donald FRS

Gender Champion 2010–14

Indi Seehra

Head of HR 2009–2014

Sigrid Fisher

Head of Equality and Diversity

Dr Vivien Gruar

SWAN coordinator 2011–15

Sylvia and Sidney Sanders

My parents

Louise Sanders

My wife since 1972