



Mobilising the gender dimension for Horizon Europe: contribution from the EU Expert Group Gendered Innovations 2 (GI2); Ineke Klinge, Rapporteur GI2









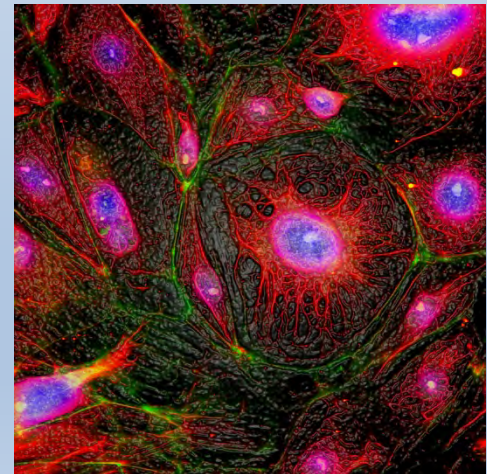
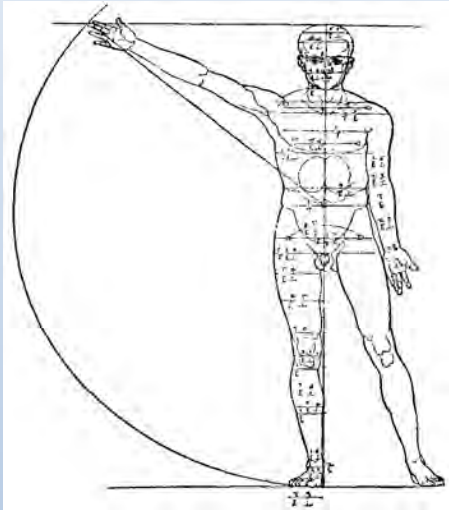
8 OUT
OF 10



Ineke Klinge • The passion of a pioneer Sex and Gender Based Research

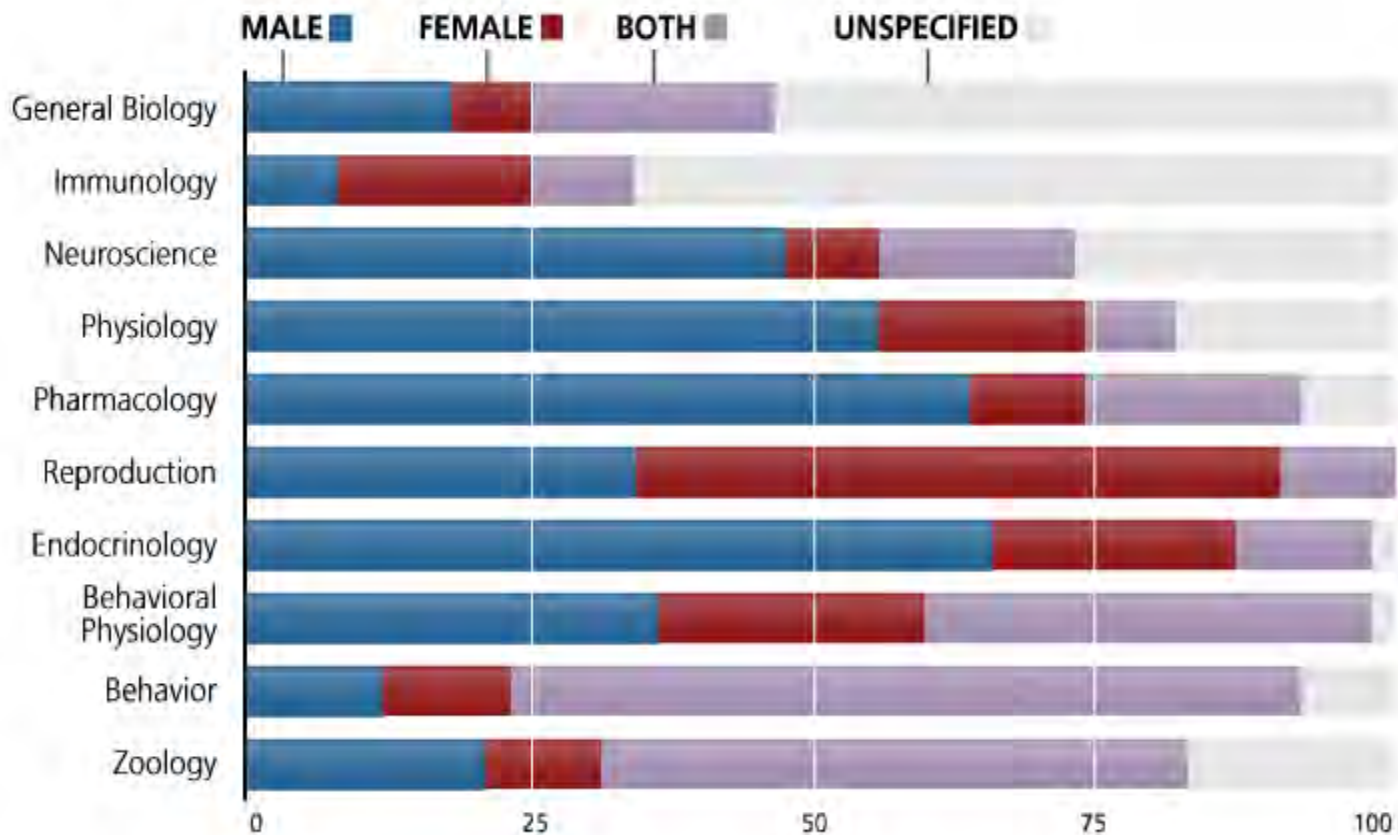


Most research is done in males



Proportion of Research Studies Using Male and/or Female Animals

From published journal articles within specified biomedical subfield, 2009



Adapted from Beery et al., 2011

Beery, A., & Zucker, I. (2011). Sex Bias in Neuroscience and Biomedical Research. *Neuroscience and Biobehavioral Reviews*, 35 (3), 565-572.



Ineke Klinge • The passion of a pioneer Sex and Gender Based Research



Time for change!

- Sex and gender as determinants of health
- Differences between women and men (known from epidemiological data)
- In need of explanation
- New paradigm: Every cell is sexed, every person is gendered

GENDER

Socially-constructed roles, behaviours, expressions and identities of girls, women, boys, men and gender diverse people.



SEX

Biological attributes of humans and animals, including physical features, chromosomes, gene expression, hormones and anatomy.



Have you considered the possibilities?

Learn more: www.cihr-irsc.gc.ca/shapingscience.html



Canadian Institutes
of Health Research

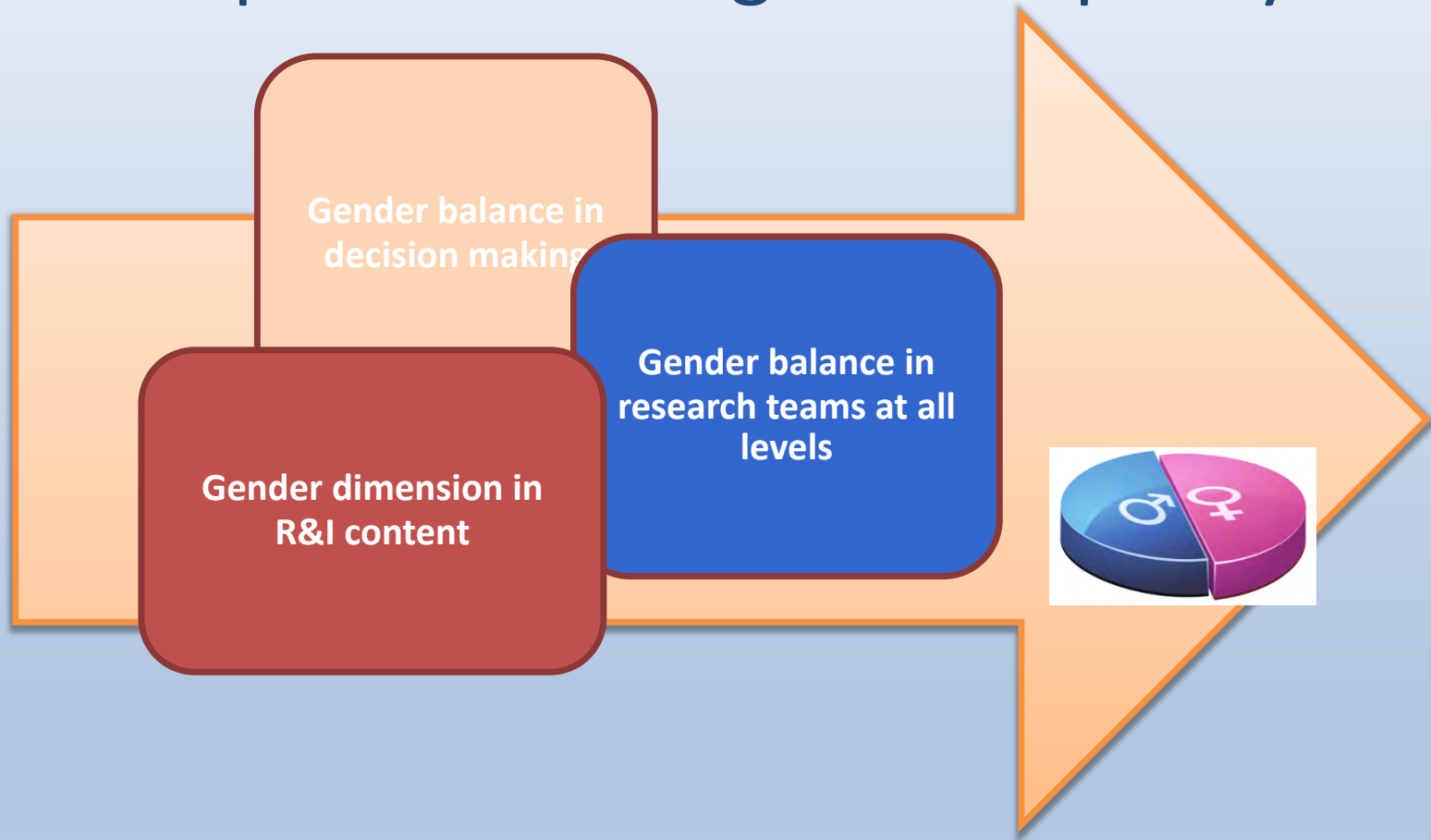
Institut de recherche
en santé du Canada

Canada

SEX and GENDER

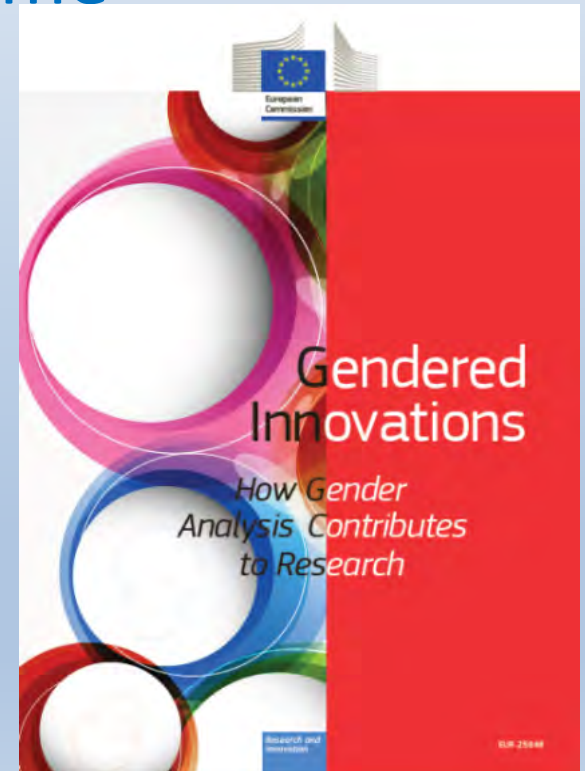
- Sex: biological attributes of humans and animals, including physical features, chromosomes gene expression, hormones and anatomy
- Gender: socially constructed roles, behaviours, expressions and identities of girls, women, boys, men and gender diverse people.

3 objectives for the promotion of gender equality



Gendered Innovations

- Moving beyond 'gender bias'
- Formulating a positive programme that inspires researchers
- Highlighting how sex and gender analysis sparks creativity and fosters new knowledge

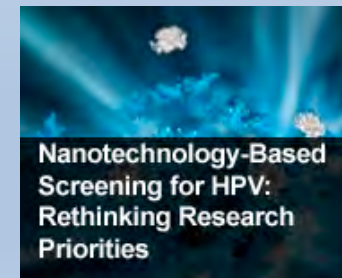
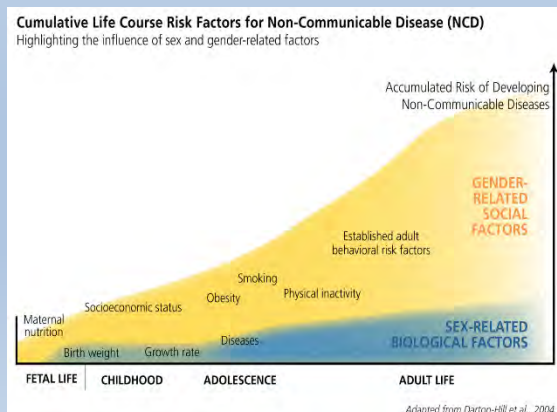
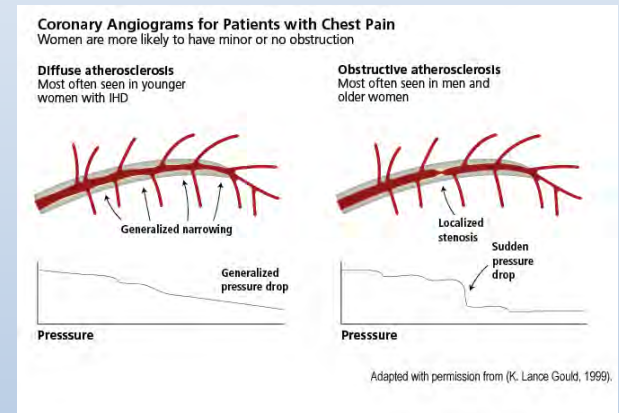
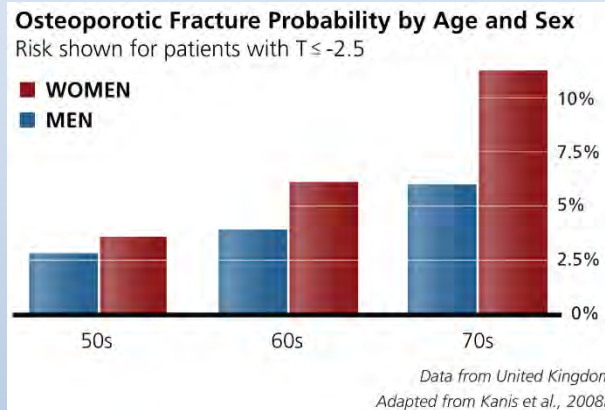


Gendered Innovations project

- 1) developed state-of-the-art **Methods** of sex and gender analysis
- 2) provided **Case Studies** to illustrate how sex and gender analysis leads to discovery

http://ec.europa.eu/research/swafs/gendered-innovations/index_en.cfm?pg=home

Gendered Innovations case studies



International comparison of policies requiring integration of sex and gender

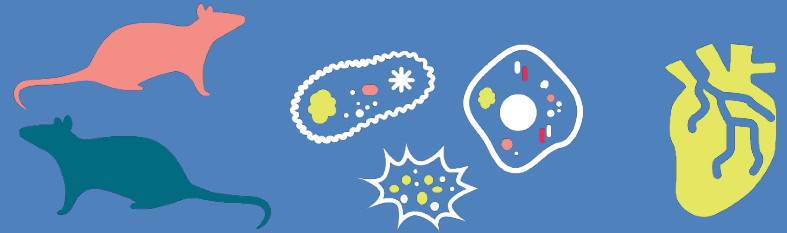
- 2002 European Commission, FP6 onwards
- 2010 IGH, Canada
- 2014 NIH, US
- 2016 Dutch ZonMW, Gender& Health Programme

Rationales of science funding bodies (the why)

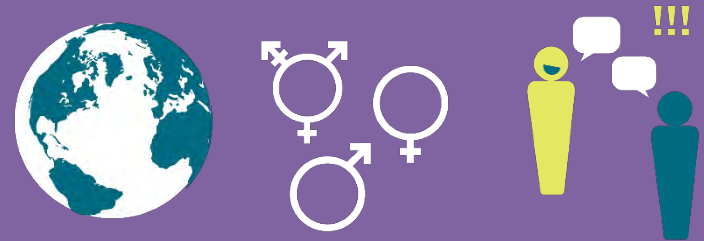
- EU H2020: Integrating gender/sex analysis in research and innovation (R&I) content helps **improve the scientific quality and societal relevance** of the produced knowledge, technology and/or innovation
- CIHR (IGH) : Integration SGBA+ is about **improving the rigor, reproducibility and generalizability** of science. It's about excellence.
- NIH OWHR: The SABV policy is meant to be a new standard to **enhance reproducibility through rigor and transparency** and increase the knowledge base.
- NL G&H: to **reduce differences in health** between women and men by addressing gaps in knowledge.

3 ONLINE TRAINING MODULES

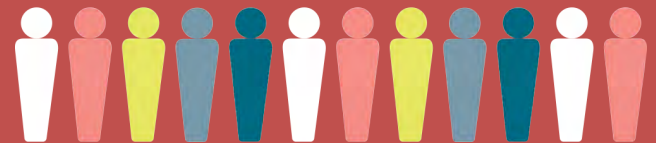
① Biomedical Research



② Primary Data Collection with Human Participants



③ Secondary Data Analysis of Human Participants



Peer review

Full proposal: aspects considered:

1. Literature review
2. Research question
3. Study design and methods
4. Analysis and reporting
5. Knowledge translation plan(= implementation)
6. <https://www.youtube.com/watch?v=Hlceez1Dx5E>

Horizon 2020 Advisory Group for Gender (AGG) I

- Mandate : to provide advice to the Commission Services on integration of the gender dimension in research and innovation content.
- Composition : each Advisory Group (for all 19 parts of H2020) delegates a gender expert to the AGG; 2-3 meetings per year
- Products :
 - Guidance for the selection of experts with gender expertise (2014)
 - For a better integration of the GD in WP 2016-17 (2015) and in WP 2018-20 (position papers)
 - Input into Strategic programming (June 2016)
 - Activities to improve the weak points of WP 14- 15 and 16-17
 - Implicit gender biases during evaluations: how to raise awareness and change attitudes? (workshop report)(2017)



Integrating the gender dimension in research programmes and content: modified diagram from *Interim evaluation: gender equality as a crosscutting issue in Horizon 2020*⁸

Horizon 2020 Interim Evaluation on Gender

- **Gender dimension in R&I content Topic level**
- Number of topics with an explicit gender dimension
- WP2014-2015:99/610(i.e.16.2%)
- WP2016-2017:108/568(i.e.19%)
- WP2018-2019:110/473(i.e.23.3%)

Conclusions AGG

- Room for improvement:
 - 1) evaluation: training of evaluators, briefing of evaluators, adaptation of scoring forms, scoring criteria
 - 2) research community: better understanding of difference between gender balance and gender dimension (sex and gender analysis)

Gendered Innovations second edition & Horizon Europe

- New Expert Group (N=24)
- Updates and new case studies
- Training and communication materials
@GenderInnovate
- Horizon Europe (2021-2027)
clusters & missions

Clusters Horizon Europe

Pillar 1

Excellent Science

European Research Council

Marie Skłodowska-Curie
Actions

Research Infrastructures

Pillar 2

Global Challenges and
European Industrial
Competitiveness

Clusters

- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3

Innovative Europe

European Innovation Council

European innovation
ecosystems

European Institute of
Innovation
and Technology

Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

GI 2 Subgroups (26 experts)

- 1 Methodology and conceptualization
- 2 Health, neuroscience and food
- 3 Climate change, energy, environment, agriculture
- 4 Urban planning, geography, transport
- 5 ICT (AI, machine learning, robotics), engineering and design
- 6 Risk Finance, taxation, economics
- 7 Communication and training

GI2 Case studies in development I

Subgroup 2 Health, Neuroscience, Food

- Pharmacotherapy: Prescription drugs
- Pain
- Systems biology

Subgroup 3 Climate change, Energy, Environment, Agriculture

- Sex in marine science and climate change impacts
- Innovative energy technology
- Energy sufficiency: transformation of energy need, care economy and societal relationships (awaiting EC approval)
- A case study on Agriculture, pending on establishing expert collaboration

GI2 Case Studies in development II

Subgroup 4 Urban planning, Geography, Transport

- Planning tools and implementation in land-use planning
- Climate friendly urban planning considering green infrastructure and nature based solutions
- New technology and sharing services for mobility

Subgroup 5 ICT (AI, Machine Learning), Engineering, Design

- Facial recognition and intersectionality
- Promoting gender equality through virtual and augmented reality
- Gender in chatbots (and virtual assistants)

Subgroup 6 Risk Finance, Taxation, Economics

- Gender equality and taxation politics
- Gender and entrepreneurship and investor relationships (pending on EC approval)

Preparing H Europe Input from GI2

- Orientations document
- EU R&I days 23-25 September
- Co-creation process; online consultation
- Think different think Gender
- Expert Group GI2 input: *Strengthening the gender dimension in Horizon Europe*
- Evidence based examples relevant to cluster and missions; emphasis on need for criteria to evaluate integration of gender dimension; need for monitoring integration gender dimension / sex and gender analysis



EUROPEAN RESEARCH & INNOVATION DAYS

DAY 2

THINK GENDER, THINK DIFFERENT!

Recommendations regarding diversity for Dutch Research and Innovation

- Milestone: the ZonMW Knowledge Programme Gender & Health (G&H) financed by the Ministry of VWS (2016, 4 years)
- Active dissemination of the principle of sex and gender analysis to other ZonMw programmes and collaboration with a.o. the Heart Foundation
- Next step: to expand the integration of the principle to other NWO domains (comparable to EU policy for Horizon Europe)
- Need for a follow-up of the current G&H programme: new topics identified (AI, robotics, VR); more focus on an inclusive science

Diversity & inclusiveness I

- Diversity in research teams
- Diversity in research methods
- Diversity in questions being asked

Making gender diversity work for scientific discovery and innovation

Mathias Wullum Nielsen,

Carter Walter Bloch &

Londa Schiebinger

Nature Human Behaviour **volume 2**,
pages 726–734 (2018)



Four independent domains

- Research teams
- Disciplines
- Research organisations
- Societies



Diversity & inclusiveness II

One and a half million medical papers reveal a link between author gender and attention to gender and sex analysis

Nielsen et al *in*

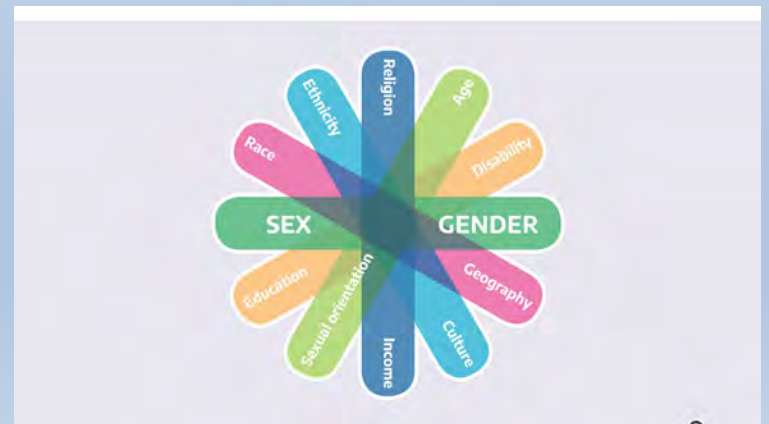
Nature Human Behaviour

2017 DOI: [10.1038/s41562-017-0235-x](https://doi.org/10.1038/s41562-017-0235-x)



The future of sex and gender science I

- An inclusive science needs innovative research **methods**, meaning that excellent research considers sex , gender and other social positions such as, age, ethnicity, SES, sexual orientation etc
- All stakeholders are needed: researchers, research financers, peer reviewers, journal editors and educational curricula



Thank you for your attention

- Questions?
- Comments?

Resources

Website Gendered Innovations project

http://ec.europa.eu/research/swafs/gendered-innovations/index_en.cfm?pg=home

Report How gender analysis contributes to research

http://ec.europa.eu/research/science-society/document_library/pdf_06/gendered_innovations.pdf

Londa Schiebinger & Ineke Klinge (2015) Gendered Innovation in Health and Medicine. In: *Gender Journal for Gender, Culture & Society*: 7(7) 29-50

<http://budrich-journals.de/index.php/gender/article/view/19311>

IGAR tools

<http://igar-tool.gender-net.eu/en>

CIRH/IGH Tools

<http://www.cihr-irsc.gc.ca/e/50836.html>

More Resources

ORWH

- FAQs about SABV policy:
- <https://orwh.od.nih.gov/research/sex-gender/nih-policy/faq/>
- <https://nexus.od.nih.gov/all/tag/sabv/>
- Videos on Methods and Techniques:
- <https://orwh.od.nih.gov/research/sex-gender/methods-and-techniques/>

IGH

- Videos and Webinars:
- <http://www.cihr-irsc.gc.ca/e/49347.html>
- Instructions for Peer Reviewers:
- <http://www.cihr-irsc.gc.ca/e/50837.html>
<https://www.youtube.com/watch?v=Hlceez1Dx5E&index=1&list=PL6hlpNDF2-NUIAX5AfUzs72esOD28bPQJ>