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IOCB PRAGUE

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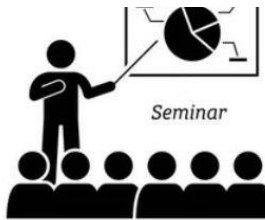
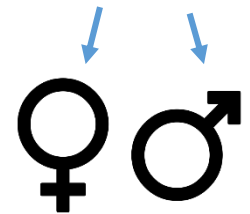
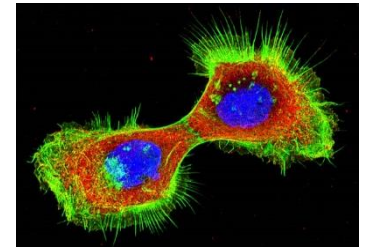
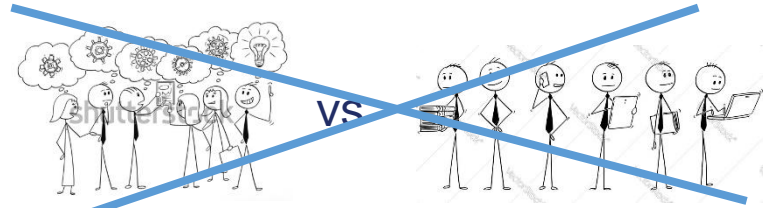
# **Sex/gender dimension in research – the basics**

**Blanka Collis| Oct 2022**

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# What is the sex/gender dimension in research?

- NOT the gender balance of teams
- IT IS: taking into account biological (sex) and social (gender) differences in research questions, from *in silico*, through *in vitro* all the way to *in vivo* systems
- IT IS: integrating gender dimension into teaching and outreach activities



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# At what stage should the sex/gender dimension in research be considered?

Setting research priorities

Formulating research questions

Developing methodologies

Gathering and analysing  
(sex-disaggregated) data

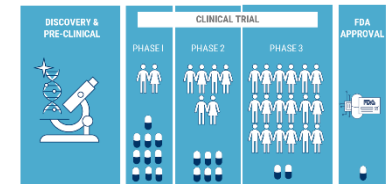
Evaluating and reporting  
research results

Transferring results to markets  
as innovations and products

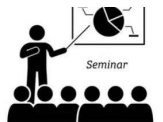
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# Examples of applicability to research at IOCB

- Sequence analyses: source of sequences? Can you sex-disaggregate the data? If not, why is that?
- Studies in cells: do cell lines come from men or women? Can you use both? Report in sex-disaggregated manner.
- Studies in animals: use animals of both sexes. Report the results in a sex-disaggregated manner.
- Clinical trials: participants should be both men and women. Data needs to be reported in a sex-disaggregated manner.
- Outreach/public engagement activities: what activities to make the message accessible to both men and women?
- Artificial intelligence for data mining: ensure methodology will not perpetuate biases intrinsic to the training sets.



Source: clinsights.com



# Sex/gender dimension in research: case studies

- Gendered innovations case studies:

<http://genderedinnovations.stanford.edu/fix-the-knowledge.html>

What is Gendered Innovations?

SEX & GENDER ANALYSIS

General Methods

Specific Methods

Terms

Checklists

CASE STUDIES

Science

Health & Medicine

Engineering

Environment

INTERSECTIONAL DESIGN

POLICY RECOMMENDATIONS

VIDEOS

Print

Tweet

This section presents case studies demonstrating in very concrete ways how methods of sex and gender analysis function to create gendered innovations.

**View Case Studies for:**

Science	Health & Medicine	Engineering	Environment
<u>Animal Research</u> : Designing Health and Biomedical Research	<u>Chronic Pain</u> : Analyzing How Sex and Gender Interact	<u>Exploring Markets for Assistive Technologies for the Elderly</u> : Engineering Checklist	<u>Agriculture</u> : Embedding Gender Norms in Innovation Processes
<u>Animal Research 2</u> : Analyzing how Sex and Gender Interact	<u>Colorectal Cancer</u> : Analyzing How Sex and Gender Interact	<u>Extended Virtual Reality</u> : Analyzing Gender	<u>Climate Change</u> : Analyzing Gender, and Factors Intersecting with Gender
<u>Genetics of Sex Determination</u> : Rethinking Concepts and Theories	<u>Covid-19</u> : Analyzing Sex and Analyzing Gender	<u>Facial Recognition</u> : Gender and Intersectionality in Machine Learning	<u>Environmental Chemicals</u> : Designing Health and Biomedical Research
<u>Stem Cells</u> : Analyzing Sex	<u>De-Gendering the Knee</u> : Overemphasizing Sex Differences as a Problem	<u>Gendering Social Robots</u> : Analyzing Gender	<u>Housing and Neighborhood Design</u> : Analyzing Gender
<u>Textbooks</u> : Rethinking Language and Visual Representations	<u>Dietary Assessment Method</u> : Analyzing How Sex and Gender Interact	<u>Haptic Technology</u> : Analyzing Gender	<u>Marine Science</u> : Analyzing Gender
	<u>Heart Disease in Diverse Populations</u> : Analyzing Sex and Gender	<u>HIV Microbicides</u> : Rethinking Research Priorities and Outcomes	<u>Menstrual Cups</u> : Life-Cycle Assessment
	<u>Nanotechnology-Based Screening for HPV</u> : Rethinking Research Priorities and Outcomes	<u>Inclusive Crash Test Dummies</u> : Rethinking Standards and Reference Models	<u>Quality Urban Spaces</u> : Gender Impact Assessment
	<u>Nutrigenomics</u> : Analyzing Factors Intersecting with Sex and Gender	<u>Human Thorax Model</u> : Rethinking Standards and Reference Models	<u>Smart Energy Solutions</u> : Intersectional Approaches
	<u>Osteoporosis Research in</u>	<u>Machine Learning: Analyzing</u>	<u>Waste Management: C</u>

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# Useful resources

- [Gendered innovations case studies](#)
  - [Genderové aspekty v projektech Horizont Evropa](#) (6 minute summary video by Technology Centre CAS, in Czech)
  - [European Institute for Gender Equality: Integration of the sex/gender dimension into research and teaching content](#)
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