

# THE QUEST CENTER IN BERLIN

A LABORATORY FOR BEHAVIOR CHANGE IN ACADEMIC BIOMEDICINE

QUALITY | ETHICS | OPEN SCIENCE | TRANSLATION

**QUEST**  
**CENTER**

Transforming Biomedical Research  
Berlin Institute of Health



**BERLIN**  
**INSTITUTE**  
**OF HEALTH**

Charité & Max Delbrück Center

# QUEST (est. 2017) Mission

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... to increase the value of biomedical research at the Berlin Institute of Health (Charité and Max Delbrück Center) and beyond.

<http://quest.bihealth.org>

## Principles

Advancement of knowledge

Robust and rigorous

Useful

for scientists

for society

transparent

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## Processes (context specific and fair, examples below)

Randomization  
Blinding  
Power  
Replication/Confirmation

Preregistration  
Timely reporting  
Open data  
Open access

Patient &  
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engagement,  
Priority setting

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## QUEST approaches (context specific and fair)

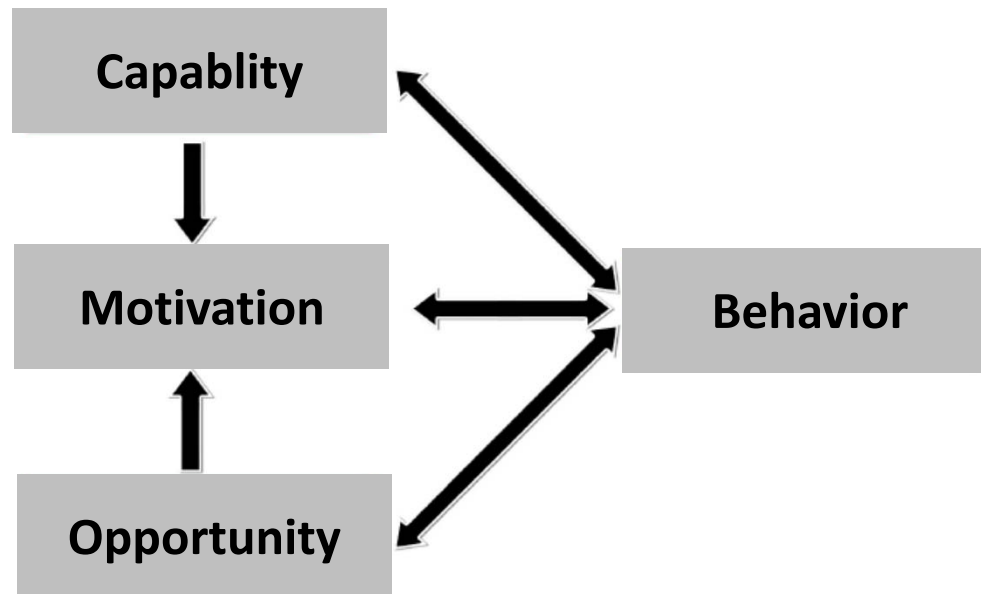
**Services:** Education, tools, electronic lab notebook,  
consultation, policy development &

**Research:** Meta-Research & implementation-Research

**Bioethics**

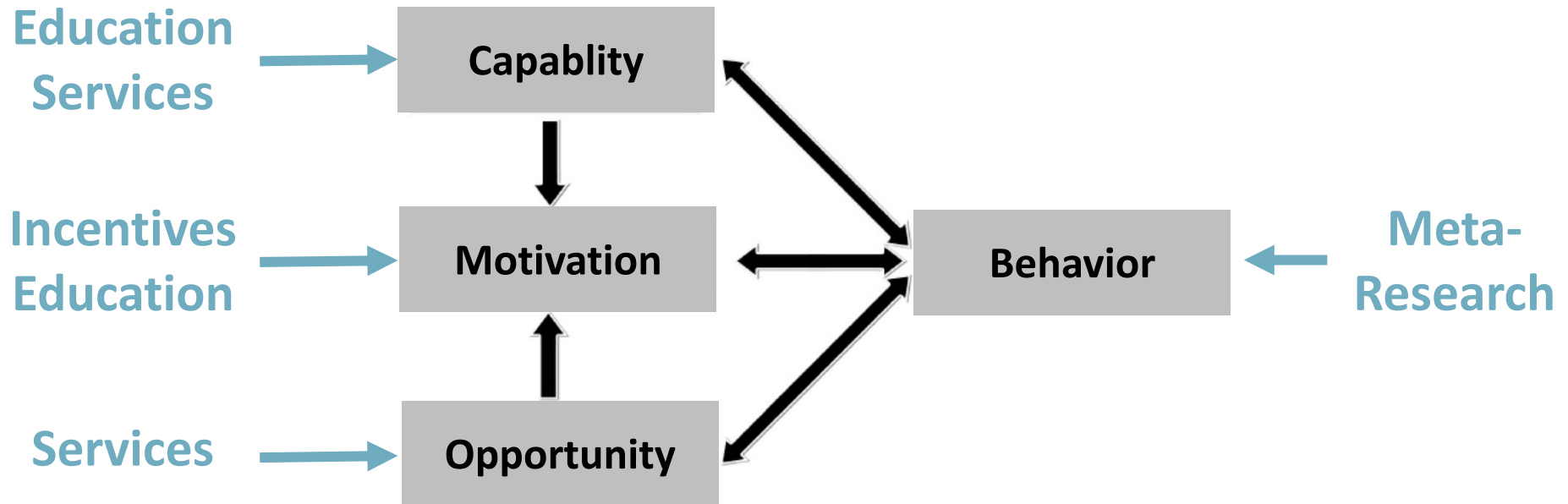
**Incentives:** MERIT, performance oriented funding, awards

# QUEST: A laboratory for behaviour change in academic biomedicine



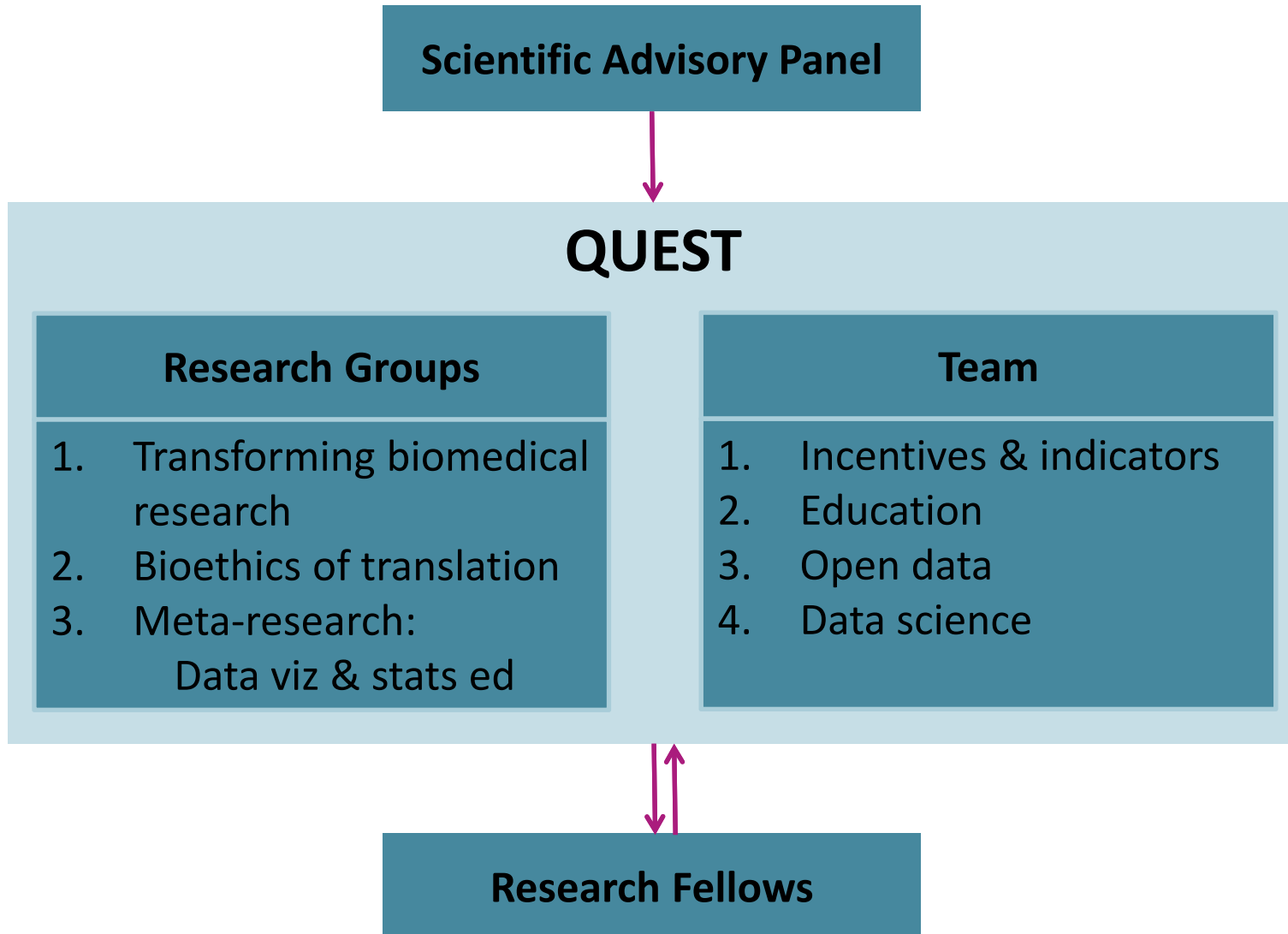
**Figure 1:** The COM-B system  
A framework for understanding behaviour

# QUEST: A laboratory for behaviour change in academic biomedicine



**Figure 1:** The COM-B system  
A framework for understanding behaviour

# QUEST Structure





# Incentives & rewards

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## **The QUEST 1,000 € Preregistration Award**

*Preregister your preclinical studies challenge – Increase the credibility of your results and get early credit for your ideas!*

## **The QUEST 1,000 € NULL results and Replication study Award**

*Publish your NULL results – Fight the negative publication bias!*

*Publish your Replication Study – Fight the replication crises!*

## **The QUEST 1,000 € Open Data Award**

*Make your data FAIR - Findable, Accessible, Interoperable, and Re-usable!*

Awards (Open Data Award, Data Reuse Award, Preregistration Award, Null Results and Replication study award): 32 awards

### 1. QUEST criteria

- Priority setting, Rigor, Transparency & dissemination, Stakeholder engagement



### 2. Used to evaluate internal funding applications; some professorship applications

### 3. QUEST representative on hiring committees that use the criteria

Committees/candidates/projects evaluated using QUEST-criteria:  
6 intramural calls with a total of 124 applications in 2018

## Want more information?



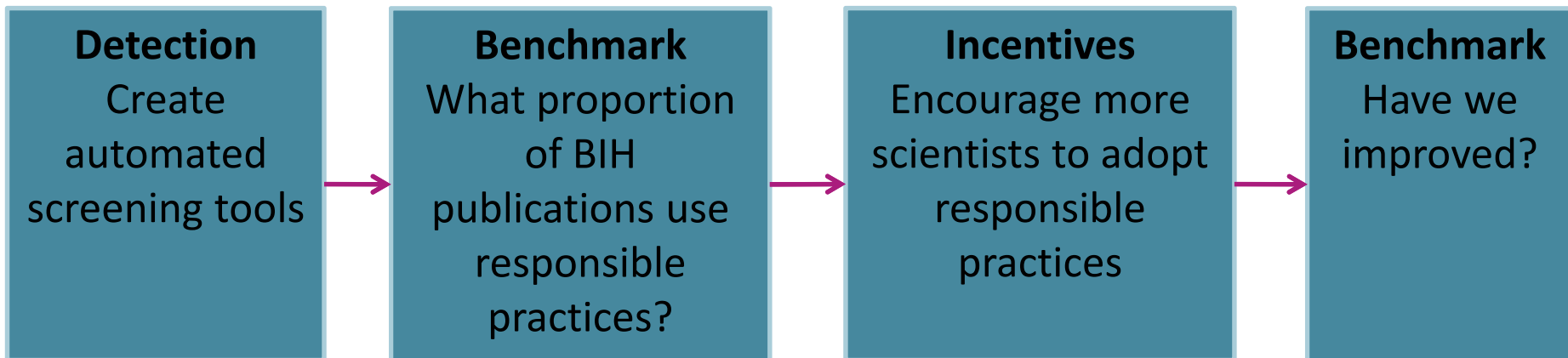
<https://osf.io/n4hcm/>



**PM-012 MERIT**  
Miriam Kip, QUEST

# Performance oriented funding

Can we use these funds to encourage responsible research practices?



Want more information?

**QUEST Publication Record PURE**

<https://tinyurl.com/y6tj94jj>



**PT-017** Nico Riedel, QUEST  
Open data screening tool

# Education

To develop and implement training and teaching resources on experimental and study design, methods to reduce bias, new modes of publishing, open science, etc.



2 international summer schools (70 participants)

8 Reproducible Research courses with R (145 participants)

Other workshops & courses

## Want more information?



**O-042 Ulf Toelch, QUEST**  
**Concurrent session 15:45 – 17:15**  
LG.34 **Education (CC9)**



[doi.org/10.1371/journal.pbio.2006022](https://doi.org/10.1371/journal.pbio.2006022)

# Infrastructure & services

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To help scientists to increase the value and impact of their research by maximizing its quality, reproducibility, generalizability, and validity - without stifling creativity and productivity

## **QUEST Tools**

1. Quality management system for preclinical research
2. Electronic lab notebooks
3. QUEST toolbox
4. FIDDLE (File Drawer Data Liberation Effort)
5. Curated open access journal whitelist

# Challenges & Future Directions

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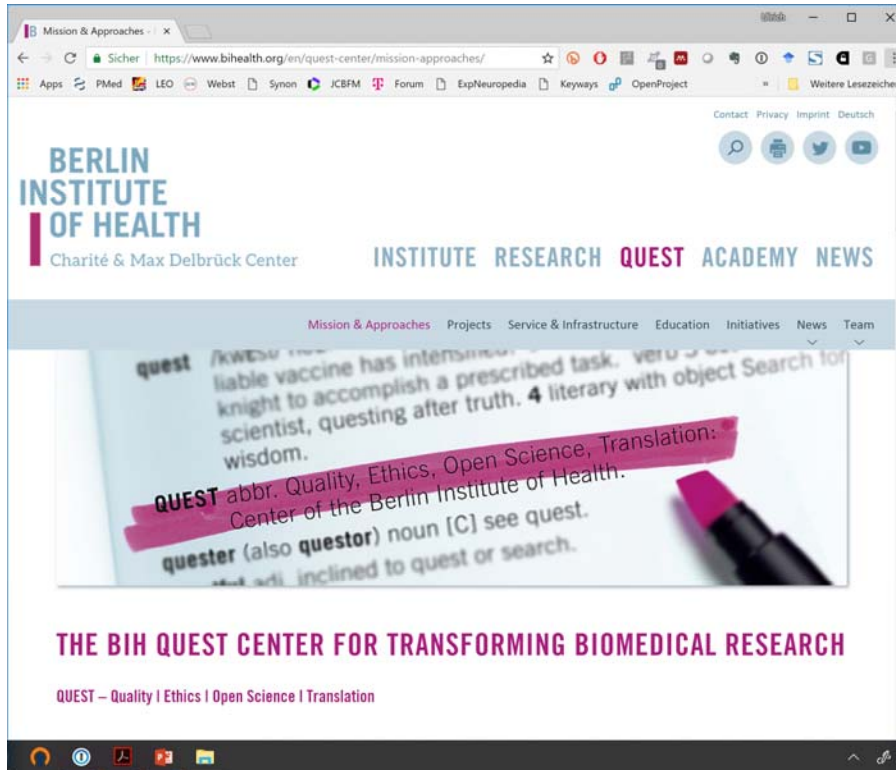
## Challenges

1. Many scientists want to implement more robust practices, but lack time, knowledge, resources
2. QUEST incentives encourage local change, but don't alter national & international evaluation standards

## Future Directions

1. Implementation research: What works? What doesn't?
2. Build support from the scientific community (bottom-up)

<http://quest.bihealth.org>



@questbih



@dirnagl

@T\_Weissgerber