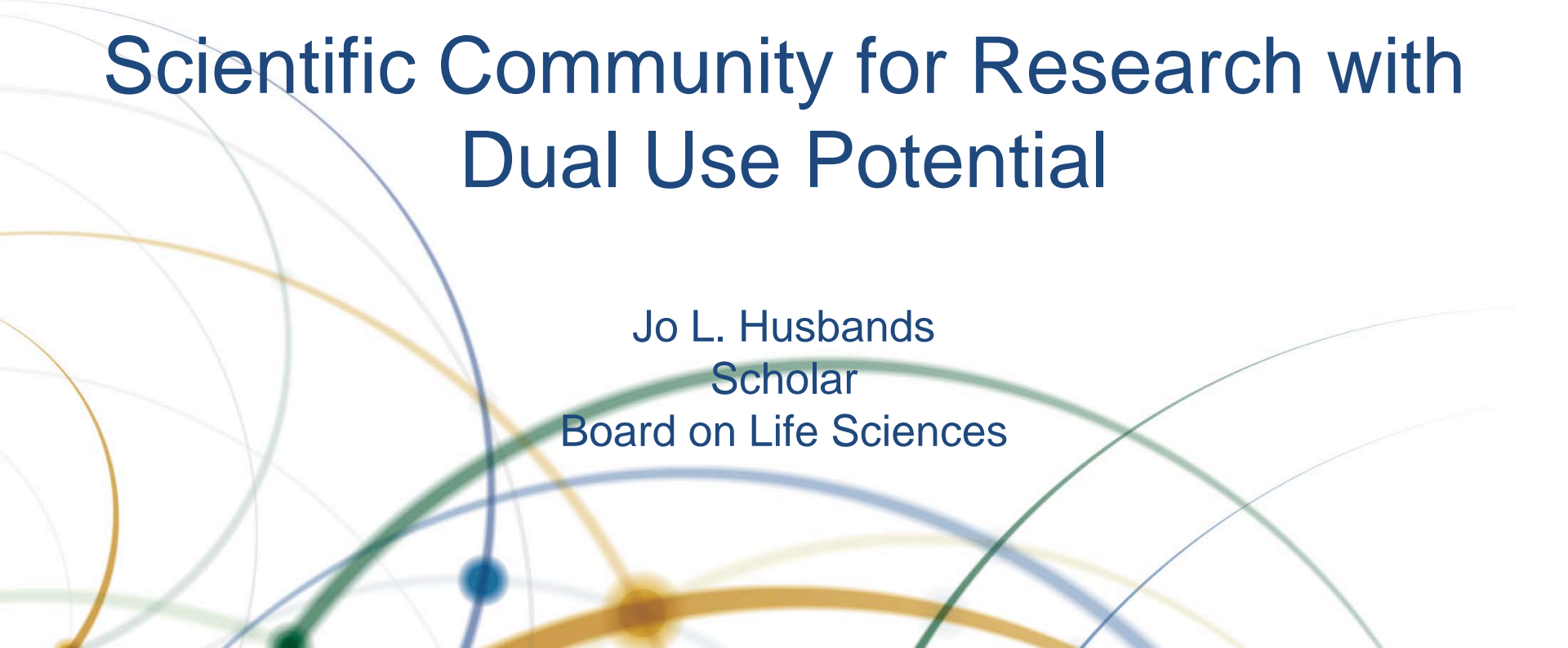


Promoting Responsible Science: Policies and Practices within the Scientific Community for Research with Dual Use Potential

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Introduction

- Building on presentation by Robin Fears and ideas/challenges that emerged from the Herrenhausen meeting
- Highlighting where behavioral and social sciences can contribute to addressing these challenges; STS relevant to all
- Presenting or proposing specific research efforts to do so

Four Challenges

- Identifying and assessing risk
- Fostering scientists engagement in security
- Promoting and sustaining a “culture of responsibility” in science
- Designing appropriate governance measures and strategies

Identifying and assessing risk

- Features of the issue: Contested, significant uncertainty, reliance on “expert” judgments
- Literature: decision science
- Particular advantages: qualitative; systematic; transparency of underlying assumptions facilitates discussion/debate
- Example: NASEM report on *Biodefense in the Age of Synthetic Biology*

Fostering scientists engagement in security

- Features of the issue: Still limited awareness, uneven acceptance, often contested, “competing catastrophes”
- Literature: “Science of Science Communication”
- Particular advantages: multidisciplinary; practical as well as normative guidance; relevant; accepted when applies to the public
- Proposal: Turn the focus, treat scientists as a “public” to understand how best to engage

Designing appropriate governance measures and strategies

- Features of the issue: rapid pace of S&T advances; inability of regulation to keep up; “governance” more than formal/legal measures
- Literature: “Anticipatory governance”
- Particular advantages: designed for these problems; being applied in some cases/settings so gaining experience; accommodates range of measures beyond formal/legal (i.e., scientific “self-governance”)
- Examples: neuroenhancement project under Horizon 2020; current efforts re gene drives and syn bio

Promoting and sustaining a “culture of responsibility” in science

- Features of the issue: currently popular remedy for this and other issues in conduct of science; includes both compliance with formal/legal measures and self-governance
- Literature: Organization studies (sociology and psychology)
- Particular advantages: relevant; practical as well as normative guidance; examples from other fields, some biosecurity work
- Examples: NASEM studies of safety in academic chemical labs; Huising and Silbey on culture in regulated bio labs

Thank you!

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