Dina Ziganshina Lienhard
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EDUCATION

PhD – Biology (Biology & Society) May 2023
School of Life Sciences, Arizona State University, Tempe, AZ

Dissertation: "Reducing Abortion Rates Without Restricting Legal Access to Abortion: Evidence from Comparative Analysis of Relevant Policies and Demographic Indicators in 15 Post-Soviet Countries and Adaptive Agent-Based Modeling of Unintended Pregnancies"

Methods: Statistical comparative analysis of longitudinal data, agent-based modeling, systematic review of scholarly and legal literature

Committee: Jane Maienschein and Monica Gaughan (co-chairs), Manfred Laubichler and Karin Ellison (members)

BS – Health Sciences (Pre-Professional) May 2018
Barrett, The Honors College, Arizona State University, Phoenix, AZ
College of Health Solutions, Arizona State University, Phoenix, AZ

Honors Thesis: "Timeline of Changes in Mammography Guidelines in the US"

MANAGERIAL POSITIONS

Senior Program Manager, School of Complex Adaptive Systems, Arizona State University (ASU) 2023 – Present

Editor-in-Chief, *Embryo Project Encyclopedia,* ASU 2021 – 2022
Embryo Project Encyclopedia (EPE) is a peer-reviewed NSF-funded encyclopedia on reproductive medicine and developmental biology.

Responsibilities: Performed all responsibilities of the managing editor while training the new managing editor for the *EPE*.

Achievements: Built and maintained a strategic partnership with the largest and most visited website on the ASU domain – *Ask A Biologist* (*AAB*) to expand access to and reach of the *EPE* by leading the creation and launch of a new cross-organizational content type (Embryo Tales) and a gamified learning experience on human reproduction (Repro Pro). I remain an advisor for all projects in the *EPE* while holding a research fellowship for 2022 – 2023 academic year.

Vice President and Board of Directors Member, *GrandPaws Pantry* 2019 – present
Goal/mission: GrandPaws Pantry is a 501©(3) nonprofit organization in Arizona that provides supplies for senior citizens' pets and other pets in need.

Responsibilities: Expansion of the Senior Companion Pet Care Program, through managing grant writing and reporting to ensure that project plan reflects the contractual deliverables, engaging with key stakeholders in the private and the public sectors, and securing strategic media partnerships.

Achievements: Secured and managed several grants, national press and media coverage of the GPP Senior Companion Pet Program, which expanded the Program from 1 to 10 facilities and from 6 to over 100 participants. Expanded the annual operating budget of the organization from $3,000 to $56,000. That allowed us to deliver over 1,300 packages of monthly supply of food and other resources to pets of seniors on fixed incomes in assisted living facilities in the Phoenix area.

Managing Editor, *Embryo Project Encyclopedia* at ASU 2018 – 2021

Responsibilities: Managed all writing, editing, publishing, and logistical aspects of the *EPE* according to a technical style guide, which I also revised twice. Taught effective scientific communication to writers, fact checking, editing, creating metadata, and coding (XHTML) to editors. Managed the *EPE* social media (Facebook, Twitter, Reddit) pages, posted regular updates, and engaged with the audience through outreach events.

Achievements: Grew the annual impact and reach of the *EPE* from 814,000 to over 2M users and from 1.2M to over 3M page views. Recruited, trained, and directed the work of 31 writers and 12 editors in teams and individually by providing timely, constructive, and personalized feedback on each person's work weekly. Consolidated 3, then 4, roles into 1 by creating, revising, and implementing technical protocols and workflow optimization guidelines for optimal writing and editing decision-making.

Instructional Aide, College of Integrative Sciences and Arts at ASU 2015 – 2018

Responsibilities: Led and managed all aspects of laboratory instruction for BIO 181/182 and CHM 237/238 (starting in 2016) for the students as described in the "Formal Teaching Experience" section below. Scheduled and led weekly Instructional Aide (IA) team meetings, prepared materials and training modules for new IAs and mentored them.

MANAGEMENT OF DIGITAL PRODUCT CREATION

Cell Size Simulator (in progress) – gamified learning experience on cell biology and nuclear size scaling in various cells (funded by an NSF grant) 2023

Repro Pro – gamified learning experience on human reproduction (forthcoming on the *Ask A Biologist* website, funded by the Center for Biology and Society at ASU) 2022

Embryo Tales – collection of short kid-friendly engaging science articles 2021

FELLOWSHIPS, SCHOLARSHIPS, AND GRANTS

ASU Graduate College, Dissertation Completion Fellowship ($21,056 + benefits) 2022 – 2023
West Valley Mavericks, Beneficiary Grant ($3,500 for GrandPaws Pantry) 2022

Arizona Community Foundation, Animal Welfare Grant ($2,000 for GrandPaws Pantry) 2019
AAAS, Section L travel funding 2018
Susan and Mark Mulzet National Travel Award 2018
ASU, New American University Scholarship ($32,000 total) 2014 – 2018
United States Department of State (US DoS), Future Leaders Exchange 2012 – 2013

HONORS AND AWARDS

Inter/national:
McKinsey & Company, Insight San Francisco, invited and funded program participant 2022
American Association for the Advancement of Science (AAAS), E-Poster Competition First Place Winner (Science in Society category, graduate students) 2021
Joshua E. Neimark Memorial Award 2021
History of Science Society, Joseph H. Hazen Award (as part of the Embryo Project team) 2018
Russian Ministry of Education, Russian National Olympiad Prize Winner 2014
United States President's Award for Educational Excellence 2013
World Heritage Student Exchange Programs, Certificate of Distinguished Achievement in International Understanding 2013
US DoS, Certificate of Appreciation for Participation in International Education Week 2012

Arizona State University:
Faculty Women's Association (FWA) Distinguished Graduate Student (nomination) 2023
SUN (Serving University Needs) Award 2022
The College of Liberal Arts and Sciences, Graduate Excellence Award 2021
Graduate and Professional Student Association (GPSA), Teaching Excellence Award 2020
Moeur Award for Academic Excellence 2018
Summa Cum Laude 2018
College of Health Solutions, Dean's List for 8 consecutive semesters 2014 – 2018

PEER-REVIEWED JOURNAL PUBLICATIONS

Lienhard, Dina, Lidiya Kisser and Liliya E. Ziganshina. (2018). "Assessing methodological quality of Russian clinical practice guidelines and Introducing AGREE II instrument in Russia." *PLOS One.* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0203328

JOURNAL PUBLICATIONS IN PROGRESS

"An agent-based modeling approach to reducing the number of unintended pregnancies in an artificial, modifiable population"

"Culture matters: Comparative analysis of fertility determinants in post-Soviet countries."

PEER-REVIEWED SINGLE-AUTHOR ENCYCLOPEDIA PUBLICATIONS

"Mammography". *Embryo Project Encyclopedia* (2018-03-25). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/13056.

"Roger Wolcott Sperry (1913–1994)". *Embryo Project Encyclopedia* (2018-02-26). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/13055.

"David Hunter Hubel (1926–2013)". *Embryo Project Encyclopedia* (2018-01-03). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/13039.

"Roger Sperry's Split Brain Experiments (1959–1968)". *Embryo Project Encyclopedia* (2017-12-27). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/13035.

"Nancy Goodman Brinker (1946–)". *Embryo Project Encyclopedia* (2017-12-12). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/13026.

"David H. Hubel and Torsten N. Wiesel's Research on Optical Development in Kittens". *Embryo Project Encyclopedia* (2017-10-11). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/12995.

"Torsten Wiesel (1924–)". *Embryo Project Encyclopedia* (2017-09-13). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/12984.

"HIP Randomized Breast Cancer Screening Trial (1963–1982)". *Embryo Project Encyclopedia* (2017-08-08). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/12974.

"Screening for Breast Cancer with Mammography" (2013), by Peter Gøtzsche and Karsten Jørgensen. *Embryo Project Encyclopedia* (2017-08-08). ISSN: 1940-5030 http://embryo.asu.edu/handle/10776/12975

INVITED ORAL PRESENTATIONS AND SEMINARS

"Reducing abortion rates without restricting legal access to abortion: Lessons and evidence from comparative analysis of relevant policies and demographic indicators in 15 post-Soviet countries" at the *Joint Atlantic Seminar for the History of Biology (JAS-Bio)*, Yale University, New Haven, CT, 2023

"Transforming governance to stay within planetary boundaries" at the *Global Futures Conference*, New York City, NY, 2022

"Why does Russia have a higher abortion rate than the other post-Soviet countries?" 30-minute research discussion session (separate from the poster presentation under the same name below) at the *American Association for the Advancement of Science*, Phoenix, AZ, 2021

Kazilek, Charles, Moeller, Karla, Abboud, Carolina, and **Dina Ziganshina** "Taking research to classrooms and the general public: Ask A Biologist and the Embryo Project" *Conversation Series*, ASU Center for Biology and Society, Tempe, AZ, 2019

POSTER PRESENTATIONS

"Complex Modeling for Lowering Abortion Rates in Different Populations." *Graduate Student Showcase* for Walton Center opening, College of Global Futures, Arizona State University, Tempe, AZ, 2022

"Why does Russia have a higher abortion rate than the other post-Soviet countries?" *American Association for the Advancement of Science*. Phoenix, AZ, 2021

"Timeline of Mammography Guidelines in the United States." *American Association for the Advancement of Science*. Austin, TX, 2018

FORMAL TEACHING EXPERIENCE

Instructor on record (graduate and undergraduate):

Embryo Project Writing Seminar (HPS/BIO 591, HPS/BIO 498, HON 497) 2020 – 2022

- 5 semesters total: 1 in-person to synchronous online (spring 2020), 2 synchronous online (fall 2020, spring 2021), 2 synchronous hybrid (fall 2021, spring 2022)
- 6–12 students every semester

Embryo Project Editing Seminar (HPS/BIO 591) 2018 – 2022

- 8 semesters total: 3 in-person (fall 2018 and 2019, spring 2019), 1 transition from in-person to synchronous online (spring 2020), 2 synchronous online (fall 2020, spring 2021), 2 synchronous hybrid (fall 2021, spring 2022)
- 1-4 students every semester

Teaching aide/apprentice/assistant (undergraduate):

History of Modern Science (BIO 317) 2020

- 1 semester asynchronous online (summer 2020)
- 32 students

Community Partnerships in Global Health (ASB 452) 2019

- 1 semester in-person (spring 2019)
- 48 students

General Organic Chemistry I and II (CHM 233/237/234/238) 2016 – 2018

- 5 semesters in-person (fall 2016 and 2017, spring 2017 and 2018, summer 2017)
- 16–20 students every semester (labs, directly responsible for all aspects of the course)
- 100–180 students every semester (lectures, indirectly responsible)

General Biology I and II (BIO 181/182) 2015 – 2018

- 6 semesters in-person (fall 2015, 2016, 2017 and spring 2016, 2017, 2018)
- 20–24 students every semester (labs, directly responsible for all aspects of the course)
- 200–330 students every semester (lectures, indirectly responsible)

FORMAL STUDENT MENTORSHIP

Grace Fitzgerald – BS Honors Thesis "A Review of the Information Available to Pregnant Women That May Influence Their Decision to Terminate or not Terminate Fetuses with Trisomy 21" (2022), Arizona State University, Barrett Honors College, committee member

Olivia Johnson – BS Honors Thesis in progress, Arizona State University, Barrett Honors College, committee member

Cole Nichols – BS Honors Thesis in progress, Arizona State University, Barrett Honors College, committee member

Peer Mentor, *School of Life Sciences (SOLS)* 2019 – 2021

Goal/mission: Mentor new graduate students to help them adjust to virtual learning, life in Arizona, and studying at Arizona State University.

Responsibilities: Hold regular meetings to connect new graduate students to each other and help build a collaborative and supportive community.

Achievements: Mentored 22 graduate students.

Organizer and Facilitator, *AAAS e-poster practice* 2020

Goal/mission: Help Arizona State University students prepare for their first professional poster presentation at the American Association for the Advancement of Science (AAAS) annual meeting.

Responsibilities: Taught the basics of science communication to 30 graduate and undergraduate students. Held 5 open Zoom sessions and provided detailed feedback to students who practiced their presentations. Also helped them with content delivery and formatting of their posters.

Achievements: 2 students (one graduate and one undergraduate) who practiced with me won awards in their sections at AAAS annual meeting.

SERVICE AND OUTREACH

International:

Contributor and Translator, *Cochrane Russia* 2012 – 2021

Goal/mission: Cochrane is a non-profit international network of professionals, and Cochrane Russia is its official Russian branch. Cochrane is an independent, diverse, global organization that collaborates to produce trusted synthesized evidence, make it accessible to all, and advocate for its use. Cochrane work is internationally recognized as the benchmark for high-quality information about the effectiveness of health care.

Achievements: Introduced the AGREE-II instrument for assessment of clinical practice guidelines (CPGs) to Russia and oversaw the initial testing of the AGREE-II instrument on Russian CPGs. Translated 22 summaries of systematic reviews and meta-analyses from English to Russia, which are now published on the Cochrane Russia website.

Helped prepare materials for translation guidelines, managed the workload of other translators, and trained them.

Arizona State University, School of Life Sciences (SOLS):

Graduate Student Representative, *SOLS Lecturer Search Committee* 2022

Goal/mission: SOLS needs a new lecturer for history of medicine and life sciences.

Responsibilities: Participated in organizational meetings and candidate interviews, created, edited, and distributed the job posting, read and evaluated applications. Participated in candidate selection and served as the voice of the graduate students.

Member, *Working Group on Career Readiness* 2021

Goal/mission: The first goal was to learn what career readiness skills were already taught within SOLS and the second was to help the SOLS faculty include National Association of Colleges and Employers (NACE) career competencies in all courses by fall 2022.

Responsibilities: Created, discussed, and edited a survey on career readiness skills and performed an analysis of the findings.

Member, *Working Group on Assessment & Accommodation* 2020

Goal/mission: To make and implement new guidelines for teaching SOLS courses during the COVID-19 global pandemic. The focus of the guidelines was on inclusivity, cooperation and technological innovations for course instruction in three modes of learning: fully online asynchronous learning, online synchronous learning, and in-person synchronous learning.

Responsibilities: Created, discussed, edited, and implemented guidelines for teaching, assessment, and accommodation for courses within the School of Life Sciences (SOLS) during the COVID-19 global pandemic.

Achievements: The School of Life Sciences adopted these guidelines in Fall 2020 and continues to use them as of Spring 2022.

News Editor, *Center for Biology and Society* 2019 – 2022

Goal/mission: Feature the accomplishments of the students, faculty, and alumni of the Center for Biology and Society (CBS) on our website.

Responsibilities: Write, edit, and collect news stories that feature conference presentations, publications, and other exciting accomplishments. Create and implement a workflow optimization protocol and train the incoming news editor.

Achievements: Published 54 news stories.

Outreach Volunteer, *Embryo Project* 2018 – 2021

Goal/mission: Increase the reach of the *Embryo Project Encyclopedia* and provide science communication resources to AZ residents.

Responsibilities: Organize the Embryo Project activities for various outreach events and recruit additional volunteers. Show the audience how educators, parents, and students can

use the *Embryo Project Encyclopedia* to learn more about their topics of interest. Teach the audience about differences in embryonic development of animals and humans. Track the use of supplies for the event.

Achievements: Organized and participated in 8 outreach events, which connected over 15,000 people to the *Embryo Project Encyclopedia.*

SOFTWARE SKILLS

Programming languages: XHTML, Python, Logo (NetLogo)
Database analysis and management: SPSS, Stata, BehaviorSearch
Data and content visualization: Tableau, Drawio, Time Graphics, Visme
Document storage management: Google Drive, Dropbox, Zotero
Adobe Suite: Illustrator, Acrobat, Photoshop
Microsoft Suite: Word, Excel, PowerPoint, Outlook, OneNote, Publisher
Google Workspace: Analytics, Calendar, Sheets, Docs, Slides, Mail
Team Communication and virtual pedagogy: Slack, Zoom, Skype, Canvas, Blackboard

LANGUAGES

Russian – native speaker
Tatar – native speaker
English – bilingual proficiency
French – limited proficiency