

# Justin A. Varholick, Ph.D.

## Curriculum Vitae

University of Florida  
Department of Molecular Genetics and Microbiology  
Cancer and Genetics Research Complex  
2033 Mowry Road, Room 408  
Gainesville, FL 32610-3610

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University Email: [justinvarholick@ufl.edu](mailto:justinvarholick@ufl.edu)  
OrCID: 0000-0003-2822-9045  
Citizenship: United States of America

### **EDUCATION**

University of Florida  
*Present*, NIH T32 Postdoctoral Fellow in Regenerative Medicine Training Program  
*Topic: Phenotypic variability in tissue regeneration in spiny mice*

Universität Bern  
2018, Ph.D. in Biomedical Science, Prof. Dr. Hanno Würbel *Advisor*  
*Thesis Topic: Social dominance and phenotypic variability in lab mice*

University of North Carolina at Greensboro  
2014, M.A. in Experimental Psychology, Profs. Drs. George F. Michel and April E. Ronca *Advisors*  
*Thesis Topic: Social behavior, dopaminergic pathways, and C-section delivery of full-term rats*

University of North Carolina at Greensboro  
2012, B.A. in Psychology, Minor in Biology

### **RESEARCH EXPERIENCE**

University of Florida, Dept. of Molecular Genetics and Microbiology, Dept. of Biology  
*June 2020 — Present*, Postdoctoral Research Fellow in Regenerative Medicine Training Program  
*January 2019 — May 2020*, Postdoctoral Associate  
Profs. Drs. Malcolm Maden and Edward Scott *Advisors*

Universität Bern, Veterinary Public Health Institute, Graduate School of Cellular and Biomedical Sciences  
*January 2015 — June 2018*, Research Assistant and Doctoral Student, Animal Welfare and 3Rs  
Prof. Dr. Hanno Würbel and Dr. Jeremy Bailoo *Advisors*

NASA Ames Research Center, Dept. of Astrobiology  
*June 2014 — December 2014*, Consultant, Reproduction and Development Lab  
Prof. Dr. April E. Ronca *Advisor*

Wake Forest University Baptist Medical Center, Dept. of Obstetrics and Gynecology  
*May 2011 — June 2014*, Volunteer Research Associate, Perinatal Neurobiology Lab  
Profs. Drs. April E. Ronca, Ronald W. Oppenheim, Carol Milligan *Advisors*

University of North Carolina at Greensboro, Dept. of Psychology  
*May 2009 — June 2014*, Research Associate, Infant Development Center  
Prof. Dr. George F. Michel *Advisor*

### **HONORS, AWARDS, AND FELLOWSHIPS**

Mentor Award, UF University Research Scholars Program (\$1,000 USD) 2020, 2021  
Award, Hilde Mangold Postdoc Symposium, Society for Developmental Biology (\$250 USD) 2020  
Award, Best Negative Data Prize (10,000 €) 2020  
Fellowship, NIH/NIDDK T32 Regenerative Medicine Training Program (\$162,000 USD) 2020-2023  
Fellowship, Swiss National Science Foundation Early Postdoc Mobility (CHF 78,550) 2019-2020  
Paper Award, Prix Jean-Pierre Mieville (CHF 5,000) 2017  
Travel Award, International Society of Developmental Psychobiology (\$1,250 USD) 2011, 2013, 2014, 2015, 2018

### **SUPERVISION OF STUDENTS/JUNIOR RESEARCHERS**

Rishi Kondapaneni, Undergrad Assistant – Biology — University of Florida – 2021–Present  
 Derek Mackey, Undergrad Assistant – Computational Engineering — University of Florida – 2020–2021  
 Daniel Levy, Undergrad Assistant – Mechanical Engineering — University of Florida – 2020–2021  
 Aaliyah Richlen, Undergrad Assistant – Computational Engineering — University of Florida – 2020–2021  
 Ashley Jenkins, Undergrad Assistant — Biology — University of Florida – 2019–2021  
 Sarim Mobin, Undergrad Assistant — Microbiology — University of Florida – 2019–2021  
 Gizelle Godinez, Undergrad Assistant — Psychology – University of Florida – 2019–2021  
 Vanessa Daniele, Master Student — Veterinary Medicine – University of Bern – 2017–2018  
 Alice Pontiggia, M.S., Research Assistant – University of Bern – 2017

## **TEACHING EXPERIENCE**

### **University of Florida**

Fall 2022, 2-day Alan Alda Science Communication Workshop (student)  
 Spring 2022, Preparing Future Faculty Course, Center for Teaching Excellence (student)  
 Fall 2021, Guest Lecture, Careers in Psychology, Illinois State University with Dr. Julie Campbell  
 Fall 2019, Guest Lecture, Contemporary Topics in Animal Welfare with Dr. Emily Miller-Cushon

### **University of North Carolina at Greensboro**

Fall 2013, Teaching Assistant, PSY 435 Advanced Biopsychology  
 Spring 2012, Teaching Assistant, PSY 435 Advanced Biopsychology  
 Spring 2012, PSY 519 Darwin, Evolution, & Society

## **MANUSCRIPTS SUBMITTED AND IN PREPARATION** (👤 *students I've supervised*)

**VARHOLICK, J.A.**, 👤 **GODINEZ, G.**, 👤 **MOBIN, S.**, 👤 **JENKINS, A.**, **ROMEO, R.D.**, **CORLL, J.**, **BARBAZUK, W.B.**, **MADEN, M.** (Biorxiv Preprint & Submitted). Social dominance status and stability in spiny mice (*Acomys cahirinus*) and its relation to ear-hole regeneration and glucocorticoids. Biorxiv doi: <https://www.biorxiv.org/content/10.1101/2022.09.13.507818v1> and submitted to *PlosOne*

## **PEER-REVIEWED PUBLICATIONS** (👤 *students I've supervised*)

**GAIRE, J.**, **VARHOLICK, J.A.**, **RANA, S.**, **SUNSHINE, M.D.**, **AHMAD, A.S.**, **CHAN, K.M.**, **ALLEN, K.**, **DORÉ, S.**, **FULLER, D.D.**, **MADEN, M.**, **SIMMONS, C.** (2021). Spiny Mouse (*Acomys*): As an emerging research organism for regenerative medicine with applications beyond the skin. *npj Regenerative Medicine*, **6**(1), 1-6. doi: 10.1038/s41536-020-00111-1

**VARHOLICK, J.A.**, **BAILOO, J.D.**, 👤 **JENKINS, A.**, **VOELKL, B.**, **WÜRBEL, H.** (2021). A systematic review and meta-analysis of the relationship between social dominance status and common behavioral phenotypes in male laboratory mice. *Frontiers in Behavioral Neuroscience*, **14**(624036). doi: 10.3389/fnbeh.2020.624036.

**BAILOO, J.D.**, **VOELKL, B.**, **VARHOLICK, J.A.**, **NOVAK, J.**, **EIMEAR, M.**, **RUSSO, M.**, **PALME, R.**, **WÜRBEL, H.** (2020). Effects of weaning age and housing conditions on phenotypic differences in mice. *Scientific Reports*, **10**(11684). doi: 10.1038/s41598-020-68549-3

**MADEN, M.**, **VARHOLICK, J.A.** (2020). Model systems for regeneration: the spiny mouse, *Acomys cahirinus*. *Development*, **147**(dev167718). doi: 10.1242/dev.167718

**VARHOLICK, J.A.**, 👤 **PONTIGGIA, A.**, **MURPHY, E.**, 👤 **DANIELE, V.**, **PALME, R.**, **VOELKL, B.**, **WÜRBEL, H.**, **BAILOO, J.D.** (2019). Social dominance hierarchy type and rank contribute to phenotypic variation within cages of laboratory mice. *Scientific Reports*, **9**(13650). doi: 10.1038/s41598-019-49612-0

**BAILOO, J.D.**, **MURPHY, E.**, **BOADA-SANA, M.**, **VARHOLICK, J.A.**, **HINTZE, S.**, **BAUSSIÈRE, C.**, **HAHN, K.C.**, **GOPFERT, C.**, **PALME, R.**, **VOELKL, B.**, **WÜRBEL, H.** (2018). Effects of cage enrichment on behavior, welfare and outcome variability in female mice. *Frontiers in Behavioral Neuroscience*, **12**, p 232. doi: 10.3389/fnbeh.2018.00232

**VARHOLICK, J.A.**, **BAILOO, J.D.**, **PALME, R.**, **WÜRBEL, H.** (2018). Phenotypic variability between social dominance ranks in laboratory mice. *Scientific Reports*, **8**(6593). doi: 10.1038/s41598-018-24624-4

**BAILOO, J.D.**, **MURPHY, E.**, **VARHOLICK, J.A.**, **NOVAK, J.**, **PALME, R.**, **WÜRBEL, H.** (2018) Does size matter?

Evaluation of space allowance on measures of animal welfare and outcome variation in laboratory mice. *Scientific Reports*, **8**(713). doi:10.1038/s41598-017-18493-6

BAILOO, J. D., **VARHOLICK, J. A.**, GARZA, X. J., JORDAN, R. L., & HINTZE, S. (2016). Maternal separation followed by isolation-housing differentially affects prepulse inhibition of the acoustic startle response in C57BL/6 mice. *Developmental Psychobiology*, **58**(8), 937-944. doi: 10.1002/dev.21422

### **PUBLISHED BOOK CHAPTERS**

**VARHOLICK, J. A.** (2019). Competitive Exclusion. In: Vonk J., Shackelford T. (eds) *Encyclopedia of Animal Cognition and Behavior*. Springer, Cham

**VARHOLICK, J. A.** (2019). Umwelt. In: Vonk J., Shackelford T. (eds) *Encyclopedia of Animal Cognition and Behavior*. Springer, Cham

### **PUBLISHED ABSTRACTS** (👤students I've supervised)

**VARHOLICK, J.A.**, 👤JENKINS, A., MADEN, M. (2021). Towards understanding the absence of freezing or 'appeasement' behavior in response to agonistic offensive behavior in African spiny mice (*Acomys cahirinus*). *Developmental Psychobiology*, **62**(S1), S65.

👤MOBIN, S., CORLL, J., ROMEO, R., MADEN, M., **VARHOLICK, J.A.** (2021). Exploring the relationship between social dominance rank and stress levels in spiny mice. *Developmental Psychobiology*, **62**(S1), S65.

**VARHOLICK, J.A.**, BAILOO, J.D., 👤JENKINS, A., VOELKL, B., WÜRBEL, H. (2020). How social dominance affects pre-clinical measures of behavior: A systematic review of studies on male laboratory mice. *Research Reproducibility 2020, Educating for Reproducibility: Pathways of Research Integrity*.

**VARHOLICK, J.A.**, 👤GODINEZ, G., CORLL, J., 👤MOBIN, S., 👤JENKINS, A., MADEN, M. (2020). Subordinate social environment delays regeneration in spiny mice (*Acomys cahirinus*). *Developmental Psychobiology*, **62**(S1), S65.

**VARHOLICK, J.A.**, 👤GODINEZ, G., 👤MOBIN, S., 👤JENKINS, A., MADEN, M. (2020). A first look into whether psychological stress delays regeneration in spiny mice (*Acomys cahirinus*). *Society for Developmental Biology 79<sup>th</sup> Annual Meeting*.

**VARHOLICK, J.A.**, 👤GODINEZ, G., 👤MOBIN, S., 👤JENKINS, A., MADEN, M. (2020). Investigating links between social stress and skin regeneration in the spiny mouse (*Acomys cahirinus*). *2020 Interdisciplinary Conference on Humanities, Social sciences, Medicine, Biology, and Mathematics, Natural & Engineering sciences. Swiss National Science Foundation Early career network in United States*.

👤GODINEZ, G., 👤MOBIN, S., MALCOLM, M., **VARHOLICK, J.A.** (2020). Incidence of agonistic behavior and its association with regeneration in spiny mice. *University of Florida. Center for Undergraduate Research Spring Symposium*.

👤JENKINS, A., 👤GODINEZ, G., MADEN, M., **VARHOLICK, J.A.** (2020) Do high levels of social avoidance affect tissue regeneration in African spiny mice? *University of Florida. Center for Undergraduate Research Spring Symposium*.

**VARHOLICK, J.A.**, 👤PONTIGGIA, A., MURPHY, E., 👤DANIELE, V., PALME, R., VOELKL, B., WÜRBEL, H., BAILOO, J.D. (2018). Social relationships contribute to phenotypic variation within cages of laboratory mice. *Developmental Psychobiology*, **60**(S2), 65.

**VARHOLICK, J.A.**, BAILOO, J.D., WÜRBEL, H. (2016). Phenotypic variability and its relation to social dominance rank within and between cages of laboratory mice. *Louis-Jeantet Symposium LS2 Satellite Meeting-The Future of Developmental Biology and Genetics*, pp. 35-36.

**VARHOLICK, J.A.**, BAILOO, J.D., WÜRBEL, H. (2016). Stability of dominance rank differentially affects exploratory behaviour in male and female mice. *Proceedings of the 50<sup>th</sup> International Congress of the International Society for Applied Ethology*, pp 164

**VARHOLICK, J.A.**, GARZA, X.J., JORDAN, R.L., MICHEL, G.F., BAILOO, J.D. (2015). Manipulation of the Pre- and Post-Weaning Social Environment and its effects on Prepulse Inhibition of the Acoustic Startle Response in C57BL/6. *Developmental Psychobiology*, **57**(7), 883.

BAILOO, J.D., REICHLIN, T.S., **VARHOLICK, J.A.**, WÜRBEL, H. (2015). At the intersection of animal welfare, reproducibility, and policy. *Developmental Psychobiology*, **57**(7), 862

RONCA, A.E., **VARHOLICK, J.**, MOYER, E.L., BOLLINGER, J.L., TULBERT, C.D., BAER, L.A. (2015).

Unpredictable variable prenatal stress programs enduring effects on the stress axis in male and female rats. Developmental Psychobiology, 57(7), 880.

**VARHOLICK, J.A.**, MORGAN, J.J., TULBERT, C.D., OLSON, J., HORITA, D.A., KLEVEN, G.A., RONCA, A.E. (2014). Neonatal neurometabonomic signatures predict adult corpus callosum volume and anxiety responses following intrauterine asphyxia and/or C-section delivery. Developmental Psychobiology, 57(S1), S33.

FRANZ, F., BABIK, I., **VARHOLICK, J.**, MICHEL, G.F. (2014). Development of hand-use preference for tool-use in infancy. Developmental Psychobiology, 57(S1), S13.

**VARHOLICK, J.A.**, TULBERT, C.A., MORGAN, J.J., KLEVEN, G., MICHEL, G.F., RONCA, A.E. (2013). Long term alterations in social behavior following perinatal asphyxia and C-section of full-term male rats. Developmental Psychobiology, 55(7), 789.

**VARHOLICK, J.A.**, TULBERT, C.A., KASZYCKI, S.J., MORGAN, J.J., KLEVEN, G., RONCA, A.E. (2011). Striatal dopaminergic alterations following intrauterine asphyxia in full term rats. Developmental Psychobiology, 53(7), 768.

## **LECTURES, SPEECHES, OR POSTER PRESENTATIONS AT PROFESSIONAL CONFERENCES**

### **Invited Seminars**

July 2020, Society for Developmental Biology 79<sup>th</sup> Annual Meeting, Hilde Mangold Postdoctoral Symposium, “A first look into whether psychological stress delays regeneration in spiny mice (*Acomys cahirinus*)”, Virtual

July 2020, Interdisciplinary Conference on Humanities, Social sciences, Medicine, Biology, and Mathematics, Natural & Engineering sciences. Swiss National Science Foundation Early career network in United States, “Investigating links between social stress and skin regeneration in the spiny mouse (*Acomys cahirinus*).” Virtual

February 2018, Graduate School for Cellular and Biomedical Sciences Symposium, University of Bern, “The perspective of mice: social dominance in the home-cage.” Bern, Switzerland.

November 2017, Annual Veterinary Public Health Institute Conference, “Are social relationships affecting our experiments?” Bern, Switzerland.

### **Invited Moderator, Organizer, Panelist**

Moderator, July 2020, Session 7, Biology. 2020 Interdisciplinary Conference on Humanities, Social sciences, Medicine, Biology, and Mathematics, Natural & Engineering sciences. Swiss National Science Foundation Early career network in United States. Virtual Meeting.

Organizer. May 2017, Workshop for Revisiting Standard Practices in Laboratory Rodents: Reproducibility and Welfare. Bern, Switzerland.

### **Poster Presentations**

**VARHOLICK, J.A.**, KONDAPANENI, R., MADEN, M. (2022). Multi-tissue, mini-organ tactile whiskerpad regeneration in adult spiny mice (*Acomys cahirinus*). Joint Society of Developmental Biology and Pan American Society of Evolutionary Developmental Biology Conference.

**VARHOLICK, J.A.**, JENKINS, A., MADEN, M. (2021). Towards understanding the absence of freezing or ‘appeasement’ behavior in response to agonistic offensive behavior in African spiny mice (*Acomys cahirinus*). 54<sup>th</sup> International Society for Developmental Psychobiology Conference.

MOBIN, S., CORLL, J., ROMEO, R., MADEN, M., **VARHOLICK, J.A.** (2021). Exploring the relationship between social dominance rank and stress levels in spiny mice. 54<sup>th</sup> International Society for Developmental Psychobiology Conference.

**VARHOLICK, J.A.**, BAILOO, J.D., JENKINS, A., VOELKL, B., WÜRBEL, H. (2020). How social dominance affects pre-clinical measures of behavior: A systematic review of studies on male laboratory mice. Research Reproducibility 2020, Educating for Reproducibility: Pathways of Research Integrity.

**VARHOLICK, J.A.**, GODINEZ, G., CORLL, J., MOBIN, S., JENKINS, A., MADEN, M. (2020). Subordinate

social environment delays regeneration in spiny mice (*Acomys cahirinus*). 53<sup>rd</sup> International Society for Developmental Psychobiology Conference.

- 📍 GODINEZ, G., 📍 MOBIN, S., MALCOLM, M., **VARHOLICK, J.A.** (2020). Incidence of agonistic behavior and its association with regeneration in spiny mice. University of Florida, Center for Undergraduate Research Spring Symposium.
- 📍 JENKINS., A., 📍 GODINEZ, G., MADEN, M., **VARHOLICK, J.A.** (2020) Do high levels of social avoidance affect tissue regeneration in African spiny mice? University of Florida, Center for Undergraduate Research Spring Symposium.
- VARHOLICK, J.A.**, LAWRENCE, J.J., BAILOO, J.D. (2019). Evaluation of the confounding influence of stereotypic behavior on common behavioral tests. Translational Research in Nervous System Health Related Issues.
- MELOTTI, L., **VARHOLICK, J.A.**, LAWRENCE, J.J., TRASTI, S., DORESETT, M., BAILOO, J.D. (2019) Refinement of euthanasia of mice using isoflurane and breathing air. Translational Research in Nervous System Health Related Issues.
- VARHOLICK, J.A.**, LAWRENCE, J.J., TRASTI, S., DORSETT, M., BAILOO, J.D. (2019). Using structural enrichment to improve the welfare of breeding mice. Translational Research in Nervous System Health Related Issues.
- VARHOLICK, J.A.**, 📍 PONTIGGIA, A., MURPHY, E., 📍 DANIELE, V., PALME, R., VOELKL, B., WÜRBEL, H., BAILOO, J.D. (2018). Social relationships contribute to phenotypic variation within cages of laboratory mice. 51<sup>st</sup> International Society for Developmental Psychobiology Conference.
- VARHOLICK, J.A.**, BAILOO, J.D., MURPHY, E., VARASTEGANI, A., WÜRBEL, H. (2017). The effect of cage and social dominance on behavioral phenotypes in *Mus musculus*. 35<sup>th</sup> International Ethology Conference.
- VARHOLICK, J.A.**, BAILOO, J.D., WÜRBEL, H. (2017). Phenotypic variability and its relation to social dominance rank within and between cages of laboratory mice. Graduate School for Cellular and Biomedical Sciences Symposium.
- VARHOLICK, J.A.**, BAILOO, J.D., WÜRBEL, H. (2016). Stability of dominance rank differentially affects exploratory behaviour in male and female mice. 50<sup>th</sup> International Congress of the International Society for Applied Ethology.
- VARHOLICK, J.A.**, GARZA, X.J., JORDAN, R.L., MICHEL, G.F., BAILOO, J.D. (2015). Manipulation of the Pre- and Post-Wearing Social Environment and its effects on Prepulse Inhibition of the Acoustic Startle Response in C57BL/6. 48<sup>th</sup> International Society for Developmental Psychobiology Conference.
- RONCA, A.E., **VARHOLICK, J.**, MOYER, E.L., BOLLINGER, J.L., TULBERT, C.D., BAER, L.A. (2015). Unpredictable variable prenatal stress programs enduring effects on the stress axis in male and female rats. 48<sup>th</sup> International Society for Developmental Psychobiology Conference.
- VARHOLICK, J.A.**, MORGAN, J.J., TULBERT, C.D., OLSON, J., HORITA, D.A., KLEVEN, G.A., RONCA, A.E. (2014). Neonatal neurometabonomic signatures predict adult corpus callosum volume and anxiety responses following intrauterine asphyxia and/or C-section delivery. 47<sup>th</sup> International Society for Developmental Psychobiology Conference.
- FRANZ, F., BABIK, I., **VARHOLICK, J.**, MICHEL, G.F. (2014). Development of hand-use preference for tool-use in infancy. 47<sup>th</sup> International Society for Developmental Psychobiology Conference.
- VARHOLICK, J.A.**, TULBERT, C.A., MORGAN, J.J., KLEVEN, G., MICHEL, G.F., RONCA, A.E. (2013). Long term alterations in social behavior following perinatal asphyxia and C-section of full-term male rats. 46<sup>th</sup> International Society for Developmental Psychobiology Conference.
- VARHOLICK, J.A.**, TULBERT, C.A., KASZYCKI, S.J., MORGAN, J.J., KLEVEN, G., RONCA, A.E. (2011). Striatal dopaminergic alterations following intrauterine asphyxia in full term rats. 44<sup>th</sup> International Society for Developmental Psychobiology Conference.

### **FUNDED GRANTS (Total: \$93,692 USD)**

September 2020 — April 2021, “Spiny Mouse Selfie”, Integrated Product and Process Design, UF Sponsored Project, Funded, \$3,000 USD, Coach: Prof. Dr. Karl Gugel  
Roles: Wrote application, Liaison for project

January 2019 – June 2020, “Skin regeneration and social stress in the African spiny mouse”  
Swiss National Science Foundation, Early Postdoc.Mobility. Funded: CHF 78,550

University of Florida, Host: Prof. Dr. Malcolm Maden

Role: Principal Investigator and Fellow

May 2017, “Workshop for Revisiting Standard Practices in Laboratory Rodents: Reproducibility and Welfare”

Fund for the Promotion of Young Researchers, University of Bern. Funded: CHF 5,000

Role: Organizer

### **UNAWARDED GRANTS, SUBMITTED**

October 2021, “Regeneration of facial tissue structure and sensorimotor function in spiny mice”

Life Science Research Foundation Postdoctoral Fellowship

Role: Research Fellow

May 2020, “Regeneration, social stress, and IGF signaling”

NIH NIGMS F32 Fellowship

Role: Research Fellow

January 2020, “Developing an animal model to accelerate the advent of precision regenerative medicine”

Branco Weiss Fellowship, Society in Science

Role: Principal Investigator and Fellow

May 2016, “A 3D Printer for Refining Rodent Research”

Fund for the Promotion of Young Researchers, University of Bern

Role: Principal Investigator

### **SERVICE**

#### **Professional Society Service**

Early Career Representative, Society for Behavioral Neuroscience and Comparative Psychology (2022-Present)

Newsletter Editor, Society for Behavioral Neuroscience and Comparative Psychology (2022-Present)

Webinar Advisory Committee, International Society for Regenerative Biology (2021-Present)

#### **Public Service**

Senior Editor, Speaking of Research (2015-Present)

Brain Awareness Council, Wake Forest University Baptist Medical Center (2010-2012)

#### **Ad-hoc Journal Reviewer**

Scientific Reports — Applied Animal Behavior Science — Journal of the American Association for Laboratory Animal Science — Animal Behavior — Behavioral Ecology and Sociobiology — Frontiers in Veterinary Animal Sciences — Human Reproduction

#### **Grant Reviewer**

Austrian Science Fund (FWF, Fonds zur Förderung der wissenschaftlichen Forschung)

### **PROFESSIONAL MEMBERSHIPS**

Society for Behavioral Neuroscience and Comparative Psychology, 2022 — Present

International Society for Regenerative Biology, 2021 — Present

Society for Developmental Biology, 2020 — Present

The Association for the Study of Animal Behaviour, 2017 — 2020

International Society for Applied Ethology, 2016 — 2020

International Society for Developmental Psychobiology, 2011 — Present

### **SELECTED PRINT AND ONLINE SCIENCE MEDIA**

#### **Science Media**

What would head or partial brain transplants do to consciousness? Mind Matters. ([April 4<sup>th</sup>, 2022](#))

Success story from the Veterinary Public Health Institute, Animal Welfare Division ([Sept. 9<sup>th</sup>, 2018](#))

### Blog articles

A recent uptick in the number of mRNA vaccines being tested in humans. Speaking of Research. ([May 18<sup>th</sup>, 2022](#)). **Varholick, J.A.**

Human mRNA vaccine trials in the 2010s? A history lesson in animal research. Speaking of Research. ([Aug. 27<sup>th</sup>, 2021](#)). **Varholick, J.A.**

#FactCheckNeeded: Non-human animals cannot have a gender identity. Speaking of Research. ([April 14<sup>th</sup>, 2021](#)).  
📌 Lewis, A.K., Bennet, A.J., Panicker, S., Dettmer, A., Bailoo, J.D., **Varholick, J.A.**

Animal research 'in parallel', lessons from Spina Bifida. Speaking of Research ([May 15<sup>th</sup>, 2020](#)). **Varholick, J.A.**

BREAKTHROUGH: Her vision was getting worse, then animal research made things clear. Speaking of Research. ([Nov. 11<sup>th</sup>, 2019](#)). **Varholick, J.A.**

Ebola Vaccine, four decades in the making. Speaking of Research. ([May 17<sup>th</sup>, 2018](#)). Dettmer, A., **Varholick, J.A.**

Of Mice and Mammaries, Parts 1 – 4. Speaking of Research. ([October 30<sup>th</sup>, 2017](#)). **Varholick, J.A.**

Does talcum powder cause ovarian cancer? Weighing up the human and animal studies. Speaking of Research. ([Sept. 5<sup>th</sup>, 2017](#)). **Varholick, J.A.**

Understanding the animal, not just its parts. Speaking of Research. ([March 2<sup>nd</sup>, 2017](#)). **Varholick, J.A.**

PR, ethics, and the science of head transplants. Speaking of Research. ([Jan 22<sup>nd</sup>, 2016](#)). **Varholick, J.A.**

### **RESEARCH SKILLS** (year started learning skill in parentheses)

#### *Statistics*

Parametric and Non-Parametric Statistical Modelling with SPSS (2012), R (2015), jamovi, and jasp (2018)

#### *Animal Behavior*

Noldus Observer (2009), BORIS (2015), and Solomon Coder (2015); Behavioral testing of rodents with Noldus Ethovision (2015); behavioral paradigm development (2015)

#### *Experimental techniques*

Cryostat, immunohistochemistry, intracardial perfusion, RT-qPCR (2011), cell culture, *in vitro* scratch assay, microtome, histology, RNA extraction, primer design, RT-qPCR (2019), confocal microscopy (2020), optogenetics, stereotaxic neurosurgery, magnetic resonance imaging (2021)