

# Julie D. White

IRTA POSTDOCTORAL RESEARCH FELLOW

National Institute of Environmental Health Sciences

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Trying to make things work

## Research Interests

- Genetic and environmental contributors to human phenotypic variation and health
- Epigenetic modifications in response to environmental exposures
- Gene x environment interactions
- Bioinformatics, statistical genetics, and data visualization

## Education

<b>B.S. in Genetics</b> CLEMSON UNIVERSITY	2010-2014
<b>M.A. in Anthropology</b> PENN STATE UNIVERSITY	2014-2016
<b>Ph.D. in Anthropology</b> PENN STATE UNIVERSITY	2016-2019

## History

<b>IRTA Postdoctoral Fellow</b> EPIDEMIOLOGY BRANCH; NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES	2020-current
<b>Instructor</b> PENN STATE UNIVERSITY	2019
<b>Graduate Research Assistant</b> PENN STATE UNIVERSITY	2014-2019
<b>Teaching Assistant</b> PENN STATE UNIVERSITY	2014-2018
<b>NSF REU Biochemistry Intern</b> TEXAS A&M UNIVERSITY	2013
<b>Summer Research Intern</b> GREENWOOD GENETICS CENTER	2012
<b>Undergraduate Researcher in Genetics and Biochemistry</b> CLEMSON UNIVERSITY	2010-2014

## Computational Languages

<b>R</b>	Advanced
<b>Bash</b>	Intermediate
<b>Python</b>	Intermediate

## Bioconductor

Novice

## MATLAB

Novice

## LaTeX

Intermediate

## plink

Advanced

## vcf- and bcftools

Advanced

## shapeit

Advanced

## Impute

Advanced

## Publications

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### IN-PROGRESS

Hoang, T. T., Qi, C., Paul, K. C., Lee, Mi Kyeong, **White, Julie D.**, Richards, M., Auerbach, S. S., Long, S., Shrestha, S., Wang, T., Beane-Freeman, L. E., Parks, C., Consortium, B., Xu, C.-j., Ritz, B., Koppelman, G. H., & London, S. J. (in review-). *Epigenome-wide dna methylation and pesticide use in the agricultural lung health study*.

### PEER-REVIEWED

Hoskens, H., Liu, D., Naqvi, S., Lee, M. K., Eller, R. J., Indencleef, K., **White, Julie D.**, Li, J., Larmuseau, M. H. D., Hens, G., Wysocka, J., Walsh, S., Richmond, S., Shriver, M. D., Shaffer, J. R., Peeters, H., Weinberg, S. M., & Claes, P. (2021). 3D facial phenotyping by biometric sibling matching used in contemporary genomic methodologies [Journal Article]. *PLOS Genetics*, 17(5), 1–28. <https://doi.org/10.1371/journal.pgen.1009528>

Indencleef, K., Hoskens, H., Lee, M. K., **White, Julie D.**, Liu, C., Eller, R. J., Naqvi, S., Wehby, G. L., Moreno Uribe, L. M., Hecht, J. T., Long, R. E., Christensen, K., Deleyiannis, F. W., Walsh, S., Shriver, M. D., Richmond, S., Wysocka, J., Peeters, H., Shaffer, J. R., ... Claes, P. (2021). The intersection of the genetic architectures of orofacial clefts and normal facial variation [Journal Article]. *Frontiers in Genetics*, 12(170). <https://doi.org/10.3389/fgene.2021.626403>

**White, Julie D.**, Indencleef, K., Naqvi, S., Eller, R. J., Hoskens, H., Roosenboom, J., Lee, M. K., Li, J., Mohammed, J., Richmond, S., Quillen, E. E., Norton, H. L., Feingold, E., Swigut, T., Marazita, M. L., Peeters, H., Hens, G., Shaffer, J. R., Wysocka, J., ... Claes, P. (2021). Insights into the genetic architecture of the human face [Journal Article]. *Nature Genetics*, 53(1), 45–53. <https://doi.org/10.1038/s41588-020-00741-7>

Ekrami, O., Claes, P., **White, Julie D.**, Weinberg, S. M., Marazita, M. L., Walsh, S., Shriver, M. D., & Van Dongen, S. (2020). A multivariate approach to determine the dimensionality of human facial asymmetry [Journal Article]. *Symmetry*, 12(3), 348. <https://doi.org/10.3390/sym12030348>

Li, J., Zarzar, T. G., **White, Julie D.**, Indencleef, K., Hoskens, H., Matthews, H., Nauwelaers, N., Zaidi, A., Eller, R. J., Herrick, N., Günther, T., Svensson, E. M., Jakobsson, M., Walsh, S., Van Steen, K., Shriver, M. D., & Claes, P. (2020). Robust genome-wide ancestry inference for heterogeneous datasets: Illustrated using the 1,000 genome project with 3D facial images [Journal Article]. *Scientific Reports*, 10(1), 11850. <https://doi.org/10.1038/s41598-020-68259-w>

**White, Julie D.**, Ortega-Castrillon, A., Virgo, C., Indencleef, K., Hoskens, H., Shriver, M. D., & Claes, P. (2020). Sources of variation in the 3dMDface and vectra h1 3D facial imaging systems [Journal Article]. *Scientific Reports*, 10(1), 4443. <https://doi.org/10.1038/s41598-020-61333-3>

Sero, D., Zaidi, A., Li, J., **White, Julie D.**, Zarzar, T. B. G., Marazita, M. L., Weinberg, S. M., Suetens, P., Vandermeulen, D., Wagner, J. K., Shriver, M. D., & Claes, P. (2019). Facial recognition from dna using face-to-dna classifiers [Journal Article]. *Nature Communications*, 10(1), 2557. <https://doi.org/10.1038/s41467-019-10617-y>

**White, Julie D.**, Ortega-Castrillón, A., Matthews, H., Zaidi, A. A., Ekrami, O., Snyders, J., Fan, Y., Penington, T., Van

Dongen, S., Shriver, M. D., & Claes, P. (2019). MeshMonk: Open-source large-scale intensive 3D phenotyping [Journal Article]. *Scientific Reports*, 9(1), 6085. <https://doi.org/10.1038/s41598-019-42533-y>

Zaidi, A. A., **White, Julie D.**, Mattern, B. C., Liebowitz, C. R., Puts, D. A., Claes, P., & Shriver, M. D. (2019). Facial masculinity does not appear to be a condition-dependent male ornament and does not reflect mhc heterozygosity in humans [Journal Article]. *Proceedings of the National Academy of Sciences*, 116(5), 1633–1638. <https://doi.org/10.1073/pnas.1808659116>

Claes, P., Roosenboom, J., **White, Julie D.**, Swigut, T., Sero, D., Li, J., Lee, M. K., Zaidi, A., Mattern, B. C., Liebowitz, C., Pearson, L., González, T., Leslie, E. J., Carlson, J. C., Orlova, E., Suetens, P., Vandermeulen, D., Feingold, E., Marazita, M. L., ... Weinberg, S. M. (2018). Genome-wide mapping of global-to-local genetic effects on human facial shape [Journal Article]. *Nature Genetics*, 50(3), 414–423. <https://doi.org/10.1038/s41588-018-0057-4>

Ekrami, O., Claes, P., **White, Julie D.**, Zaidi, A. A., Shriver, M. D., & Van Dongen, S. (2018). Measuring asymmetry from high-density 3D surface scans: An application to human faces [Journal Article]. *PloS One*, 13(12), e0207895–e0207895. <https://doi.org/10.1371/journal.pone.0207895>

Indencleef, K., Roosenboom, J., Hoskens, H., **White, Julie D.**, Shriver, M. D., Richmond, S., Peeters, H., Feingold, E., Marazita, M. L., Shaffer, J. R., Weinberg, S. M., Hens, G., & Claes, P. (2018). Six nscl/p loci show associations with normal-range craniofacial variation [Journal Article]. *Frontiers in Genetics*, 9(502). <https://doi.org/10.3389/fgene.2018.00502>

Roosenboom, J., Indencleef, K., Lee, M. K., Hoskens, H., **White, Julie D.**, Liu, D., Hecht, J. T., Wehby, G. L., Moreno, L. M., Hodges-Simeon, C., Feingold, E., Marazita, M. L., Richmond, S., Shriver, M. D., Claes, P., Shaffer, J. R., & Weinberg, S. M. (2018). SNPs associated with testosterone levels influence human facial morphology [Journal Article]. *Frontiers in Genetics*, 9(497). <https://doi.org/10.3389/fgene.2018.00497>

Kelso, A. A., Goodson, S. D., Watts, L. E., Ledford, L. L., Waldvogel, S. M., Diehl, J. N., Shah, S. B., Say, A. F., **White, Julie D.**, & Sehorn, M. G. (2017). The  $\beta$ -isoform of bccip promotes adp release from the rad51 presynaptic filament and enhances homologous dna pairing [Journal Article]. *Nucleic Acids Res*, 45(2), 711–725. <https://doi.org/10.1093/nar/gkw877>

## NON PEER-REVIEWED

**White, Julie D.**, & Puts, D. A. (2019). Genes influence facial attractiveness through intricate biological relationships [Journal Article]. *PLOS Genetics*, 15(4), e1008030. <https://doi.org/10.1371/journal.pgen.1008030>

## Grants and Awards

NATIONAL SCIENCE FOUNDATION DDRIG (\$31,535; AWARDED BUT DECLINED)	2019
PSU HILL FELLOWSHIP AWARD (\$1500 AND \$1200)	2017-2018
UW SUMMER INSTITUTES IN STATISTICAL GENETICS TRAVEL AWARD (\$1800)	2017
PSU RGSO CONFERENCE TRAVEL AWARD (\$400 EACH YEAR)	2016-2018
PSU CENTER FOR HUMAN EVOLUTION AND DIVERSITY RESEARCH GRANT (\$7303)	2015

## Invited Presentations

### Center for Craniofacial and Dental Genetics; Advances in Human Facial Genetics Meeting

Pittsburgh, PA, USA

203 GWAS SIGNALS REVEAL COMBINATORIAL EFFECTS ON THE GENETIC ARCHITECTURE OF FACIAL SHAPE

2019

### KU Leuven; Medical Imaging Center

Leuven, Belgium

DETECTING ASYMMETRY IN 3D FACIAL SCANS

2018

### University of Pretoria; Genetics department

Pretoria, South Africa

EXPLORING GENOTYPE TO PHENOTYPE CONNECTIONS

2016

## Conference Participation

## **Pedagogical Experience**\_\_\_\_\_

STUDENT ADVISING

PRIMARY INSTRUCTOR

GRADUATE STUDENT INSTRUCTOR

## **Professional Development**\_\_\_\_\_

## **University and Professional Service**\_\_\_\_\_

AD HOC REVIEWER

- PLoS Genetics (1)
- Scientific Reports (1)

## **Professional Memberships**\_\_\_\_\_