# CURRICULUM VITAE Jing Hao, Ph.D., M.D., M.S., M.P.H. April 18, 2022

#### Name

Jing Hao, Ph.D., M.D., M.S., M.P.H.

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#### Education

M.D.	2004	Clinical Medicine	Shanxi Medical University	Shanxi, China
M.S.	2007	Immunology	Shanghai Jiaotong University	Shanghai, China
M.P.H.	2009	Health Policy and Management	University of Massachusetts Amhers	Amherst, MA
Ph.D.	2015	Health Policy and Management	University of Massachusetts Amherst	Amherst, MA
		Minor in Biostatistics and Health Ec	onomics	

#### **Professional Appointments**

08/2019 - present	Adjunct Assistant Professor, Genomic Medicine Institute, Geisinger, Danville, PA
12/2017 - present	Adjunct Assistant Professor, Department of Clinical Sciences, Geisinger
	Commonwealth School of Medicine, Scranton, PA
07/2016 - present	Assistant Professor, Department of Population Health Sciences, Geisinger, Danville,
	PA
09/2014—06/2016	AcademyHealth Delivery System Science Fellow, Health Economics Research and
	Evaluation (HERE) core, Center for Health Research, Geisinger Health System,
	Danville, PA

#### Research Support

#### **Active**

**1 R01 HG012262-01** (Peterson; Hao; Veenstra) 03/10/2021 – 02/28/2027 3.48 calendar NIH/NHGRI \$ 280,741

Rational Integration of Polygenic Risk Scores (RIPS)

The Rational Integration of Polygenic Risk Scores (RIPS) project will use economic modeling to project the lifetime clinical impact and cost-effectiveness of screening a diverse population with PRS to predict the onset of heart disease, breast cancer, and colorectal cancer. The models produced by this study will account for the cost of genetic testing, the cost and effectiveness of the preventative care needed to reduce risk, and the potential pitfalls associated with using these novel interventions in underrepresented and underserved populations.

5 R01 CA 211723 (Rahm)

8/1/2017 - 7/31/2022

1.20 calendar

Hao – Co-Investigator

NIH/NCI

\$529,505

Implementing Universal Lynch Syndrome Screening across Multiple Healthcare Systems: Identifying Strategies to Facilitate and Maintain Programs in Different Organizational Contexts (IMPULSS)

The overarching goal of this project is to create an organization-level toolkit for implementing, maintaining and improving Lynch syndrome (LS) screening by using tools from implementation science to describe, explain, and compare decision making and other variations in LS screening implementation across multiple healthcare systems.

Supplement to R01 CA 211723 (Rahm/Hao)

8/1/2020 - 7/31/2022

0.60 calendar

NIH/NCI

\$146,601

Building User-friendly Generic Decision Analytic Modeling Tools to Inform and Guide Decision-making of Lynch Syndrome Screening at Local Healthcare Systems (IMPULSS Supplement)

The purpose of this proposed supplement is to develop two user-friendly generic modeling tools for CRC and EC populations, respectively, based on already developed conventional decision analytic models to inform and guide decision-making of LS screening at local healthcare systems.

1 U01 CA 240747 (Rahm; Henrikson; Cabell)

06/01/2020 - 05/31/2024

1.80 calendar

Hao – Co-Investigator

NIH/NCI

\$661,017

Feasibility and Assessment of a Cascade Traceback Screening program – FACTS

This study will determine how to communicate to ovarian cancer patients about the availability of genetic testing, how to facilitate testing with at risk relatives, and the privacy laws across all 50 states which may facilitate or hinder the notification and testing of at-risk relatives.

R61HL161775 (Jones, Gidding)

12/01/2021 - 11/30/2026

1.20 calendar

Hao - Co-I

NIH/NHLBI

\$259,727

Collaborative Approach to Reach Everyone with Familial Hypercholesterolemia: CARE-FH

Diagnosis rates of familial hypercholesterolemia (FH) are low in the United States, despite multiple guidelines and recommendations for screening and treatment of high cholesterol, to prevent heart attacks in those affected. Using a stepped-wedge design, we plan to utilize tools from implementation science to improve uptake, acceptability, and sustainability of FH diagnostic programs in primary care settings. If successful, this study will provide tools generalizable to other health care systems to improve FH diagnosis rates. The goal of this study is to utilize tools from implementation science to improve uptake, acceptability, and sustainability of FH diagnostic programs in primary care settings.

1R35HG011285-01 (Lu)

09/01/2020-06/30/2025

1.20 calendar

Hao - Subaward Site-PI

NIH/NHGRI

\$570,612

Surveillance for Outcomes of Genomic Medicine Policies

<sup>\*</sup>effort will start 06/1/2022 \*

<sup>\*</sup>effort will start 01/2023

This project seeks to advance the field of genomic medicine and society by developing and validating analytical methods for efficient, rigorous evaluation of policies that impact access to genomic tests and associated outcomes to inform healthcare and policy decisions.

**267698-GC**(Hao) 07/01/2020-06/30/2022 1.20 calendar

PA DOH

Cancer Survivorship \$41,609

The goal of this contract is to evaluate the implementation of the cancer survivorship program models at Geisinger Cancer Institute.

#### **Past**

Project: Rational Integration of Clinical Sequencing (RISE) (Peterson; Hao; Veenstra)

Grant: NIH/NHGRI R01 Period: 08/2017—07/2021

Project: Comparing diagnosis and health outcomes of patients with medullary thyroid cancer identified

through MyCode program versus traditional approach.

Grant: Geisinger internal CRF Period: 11/2020-10/2021

Role: Co-I (PI: Purdy, Nicholas)

Project: Population-based breast cancer screening (Leeming; Hao)

Grant: Geisinger Health Plan Quality Fund

Time period: 07/2017 - 06/2020

Project: Economic and health outcomes associated with pre-eclampsia and benefits of a new diagnostic test

Grant: Progenity, Inc

Time period: 04/2017-03/2019

Role: Co-Investigator (PI: Snyder, Susan)

Project: Economic Outcomes of Genomic Return of Results to MyCode® Participants.

Grant: Geisinger Large Internal Research Grant

Time period: 04/2015-03/2018

Role: Co-Investigator (PI: Snyder, Susan)

Project: Development of an Operational Decision Support Tool for Biologic Pharmaceutical Use in Chronic

Disease Management

Grant: Georgia Tech-Geisinger Health System Seed Grant

Time period: September, 2016-June, 2017; Role: Co-Investigator (PI: Seth Hostetler)

Project: Impact of Pharmacist-Led Management of Diabetes Mellitus on Patient Outcomes and Cost of Care

Grant: GlaxoSmithKline

Time period: June, 2015-December, 2016; Role: Co-Investigator (PI: Maeng, Daniel)

Project: A cost-effectiveness analysis of a test that predicts risk of malignant progression in Barrett's

Esophagus

Grant: Cernostics Inc

Time period: July, 2016-November, 2016; Role: Co-Investigator (PI: Snyder, Susan)

Project: Economic evaluation of HLA-B\*1502 genotyping in carbamazepine induced Stevens–Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN)

Grant: NIH U01 GM007269

Time period: October, 2014-April, 2016; Role: Key Personnel (Site PI: Williams, Marc)

Project: Endoscopic ultrasound (EUS) and endoscopic retrograde cholangiopancreatography (ERCP)

procedures: a comparative cost analysis of tandem and separate procedures (Hao)

Grant: Geisinger Small Internal Research Grant

Time period: 06/2015—05/2016

#### Publications (\*corresponding author)

- Laney K. Jones, Nan Chen, Dina Hassen, Tracey Klinger, Megan McMinn, Dustin N. Hartzel, David Veenstra, Scott Spencer, Susan R. Snyder, Josh F. Peterson, Victoria Schlieder, Marc S. Williams, Jing Hao\*. Impact of a population genomic screening program on health behaviors for familial hypercholesterolemia risk. Accepted by Circulation: Genomic and Precision Medicine
- Jones L.K.\*; Williams, M.S.; Ladd, I.G.; Cawley, D.; Ge, S.; Hao, J.; Hassen, D.; Hu, Y.; Kirchner, H.L.; Kobylinski, M.; Lesko, M.G.; Nelson, M.C.; Rahm, A.K.; Rolston, D.D.; Romagnoli, K.M.; Schubert, T.J.; Shuey, T.C.; Sturm, A.C.; Gidding, S.S. Collaborative Approach to Reach Everyone with Familial Hypercholesterolemia: CARE-FH Protocol. *J. Pers. Med.* 2022, *12*, 606. https://doi.org/10.3390/jpm12040606
- 3. Guzauskas GF, Jiang S, Garbett S, Zhou Z, Spencer SJ, Snyder SR, Graves JA, Williams MS, **Hao J**, Peterson JF, Veenstra DL\*. Cost-effectiveness of population-wide genomic screening for Lynch syndrome in the United States. Genet Med. 2022 Feb 25:S1098-3600(22)00033-8. doi: 10.1016/j.gim.2022.01.017. Epub ahead of print. PMID: 35227606.
- 4. **Hao J\***, Hassen D, Gudgeon JM, Snyder SR, Hampel H, Williams MS, Sharaf RN, Lu CY, Williams JL, Schlieder V, Rahm AK. Economic Evaluation of Universal Lynch Syndrome Screening Protocols among Newly Diagnosed Patients with Colorectal Cancer. *Journal of Personalized Medicine*. 2021; 11(12):1284. <a href="https://doi.org/10.3390/jpm11121284">https://doi.org/10.3390/jpm11121284</a>
- 5. DiNucci A, Henrikson NB, Jonas MC, Basra S, Blasi P, Brown J, Esplin ED, Hassen D, Hao J, Hu Y, Klinger T, Ladd I, Leppig K, Lewis M, Meyer M, Ney S, Ramaprasan A, Romagnoli K, Salvati Z, Scrol A, Schwiter R, Sheridan L, Somasundaram B, Suwannarat P, Wagner JK, Rahm AK\*. Feasibility and Assessment of a Cascade Traceback Screening Program (FACTS): Protocol for a Multisite Study to Implement and Assess an Ovarian Cancer Traceback Cascade Testing Program. *Journal of Personalized Medicine*. 2021; 11(6):543. https://doi.org/10.3390/jpm11060543
- 6. Gudgeon JM\*, Varner MW, Hao J, Williams MS. Model-Based Re-Examination of the Effectiveness of

- Tumor/Immunohistochemistry and Direct-to-Sequencing Protocols for Lynch Syndrome Case Finding in Endometrial Cancer. JCO Oncol Pract. 2021 Apr 22:OP2000988. doi: 10.1200/OP.20.00988. Epub ahead of print. PMID: 33886346.
- Yuliwulandari R\*, Shin JG, Kristin E, Suyatna FD, Prahasto ID, Prayuni K, Mahasirimongkol S, Cavallari LH, Mitropoulou C, Patrinos GP, Hao J, Williams MS, Snyder SR. Cost-effectiveness analysis of genotyping for HLA-B\*15:02 in Indonesian patients with epilepsy using a generic model. Pharmacogenomics J. 2021 Apr 6. doi: 10.1038/s41397-021-00225-9. Epub ahead of print. PMID: 33824430.
- 8. Snyder SR\*, Hassen D, Rahm AK, **Hao J**, Crissinger S, et al. Risk Assessment-Based Breast Cancer Screening Programs: A U.S. Environmental Scan. Ann Breast Cancer. 2021; 4(1): 1016.
- Guzauskas GF, Garbett S, Zhou Z, Spencer SJ, Smith HS, Hao J, Hassen D, Snyder SR, Graves JA, Peterson JF, Williams MS, Veenstra DL\*. Cost-effectiveness of Population-Wide Genomic Screening for Hereditary Breast and Ovarian Cancer in the United States. JAMA Netw Open. 2020 Oct 1;3(10):e2022874. doi: 10.1001/jamanetworkopen.2020.22874. PMID: 33119106; PMCID: PMC7596578.
- 10. Buchanan AH\*, Kirchner HL, Schwartz ML, Kelly MA, Schmidlen T, Jones LK, Hallquist ML, Rocha H, Betts M, Schwiter R, Butry L, Lazzeri AL, Frisbie LR, Rahm AK, **Hao J**, Willard HF, Martin CL, Ledbetter DH, Williams M, Sturm AC. Clinical outcomes of a genomic screening program for actionable genetic conditions. Genetics in Medicine. 2020 Jun 30:1-9.
- 11. **Hao J\***, Hassen D, Manickam K, Murray MF, Hartzel DN, Hu Y, Liu K, Rahm AK, Williams MS, Lazzeri A, Buchanan A, Sturm A, Snyder SR. Healthcare Utilization and Costs after Receiving a Positive BRCA1/2 Result from a Genomic Screening Program. J Pers Med. 2020 Feb 3;10(1). pii: E7. doi: 10.3390/jpm10010007. PubMed PMID: 32028596.
- 12. **Hao J\***, Hassen D, Hao Q, Graham J, Paglia MJ, Brown J, Cooper M, Schlieder V, Snyder SR. Maternal and Infant Health Care Costs Related to Preeclampsia. Obstet Gynecol. 2019 Nov 4. doi: 10.1097/AOG.000000000003581. [Epub ahead of print] PubMed PMID: 31698380.
- Hao J\*, Critchley-Thorne R, Diehl DL, Snyder SR. A Cost-Effectiveness Analysis of An Adenocarcinoma Risk Prediction Multi-Biomarker Assay For Patients With Barrett's Esophagus. Clinicoecon Outcomes Res. 2019 Oct 25;11:623-635. doi: 10.2147/CEOR.S221741. eCollection 2019. PubMed PMID: 31749626
- 14. Veenstra DL\*, Guzauskas G, Peterson J, Hassen DA, Snyder S, **Hao J**, Williams M. Cost-effectiveness of population genomic screening. Genet Med. 2019 Jul 15. doi: 10.1038/s41436-019-0580-4. [Epub ahead of print] PubMed PMID: 31303645.
- 15. Snyder SR\*, **Hao J**, Cavallari LH, Geng Z, Elsey A, Johnson JA, Mohamed Z, Chaiyakunapruk N, Chong HY, Dahlui M, Shabaruddin FH, Patrinos GP, Mitropoulou C, Williams MS. Generic Cost-Effectiveness Models: A Proof of Concept of a Tool for Informed Decision-Making for Public Health Precision Medicine. Public Health Genomics. 2018;21(5-6):217-227. doi: 10.1159/000500725. Epub 2019 Jun 12. PubMed PMID: 31189173; PubMed Central PMCID: PMC6762029.
- 16. Rahm AK\*, Cragun D, Hunter JE, Epstein MM, Lowery J, Lu CY, Pawloski PA, Sharaf RN, Liang SY, Burnett-Hartman AN, Gudgeon JM, **Hao J**, Snyder S, Gogoi R, Ladd I, Williams MS. Implementing

- universal Lynch syndrome screening (IMPULSS): protocol for a multi-site study to identify strategies to implement, adapt, and sustain genomic medicine programs in different organizational contexts. BMC Health Serv Res. 2018 Oct 30;18(1):824. doi: 10.1186/s12913-018-3636-2. PubMed PMID: 30376847; PubMed Central PMCID: PMC6208012.
- 17. Maeng DD\*, Graham J, Bogart M, **Hao J**, Wright EA. Impact of a pharmacist-led diabetes management on outcomes, utilization, and cost. Clinicoecon Outcomes Res. 2018 Sep 24;10:551-562. doi: 10.2147/CEOR.S174595. eCollection 2018. PubMed PMID: 30288070; PubMed Central PMCID: PMC6161711.
- 18. **Hao J\***, Pitcavage J, Jones JB, Hoegerl C, Graham J. Measuring Adherence and Outcomes in the Treatment of Patients with Multiple Sclerosis. J Am Osteopath Assoc. 2017 Dec 1;117(12):737-747. doi: 10.7556/jaoa.2017.145. PubMed PMID: 29181516.
- 19. **Hao J\***, Maeng DD, Yan X, Stewart WF, Boscarino JA. Assessing Healthcare Utilization and Cost of Care Among Rheumatoid Arthritis Patients: A Comparison of Electronic Medical Records and Claims Data. Journal of Health Care Finance. 2017 Jul 10;43(4).
- 20. Maeng DD\*, **Hao J**, Bulger JB. Patterns of multiple Emergency Department visits: Do primary care physicians matter? Perm J. 2017;21. doi: 10.7812/TPP/16-063. Epub 2017 Mar 15. PubMed PMID: 28333606.
- 21. Chong HY, Mohamed Z, Tan LL, Wu DBC, Shabaruddin FH, Dahlui M, Apalasamy YD, Snyder S, Williams MS, **Hao J**, Cavallari LH, Chaiyakunapruk N\*. (2017) Is Universal HLA-B\*15:02 Screening a Cost-Effective Option in an Ethnically-Diverse Population? A Case Study of Malaysia. Br J Dermatol. 2017 Mar 27. doi:10.1111/bjd.15498. [Epub ahead of print] PubMed PMID: 28346659.
- 22. Gai, Y.\*, Feng, L. and **Hao, J.**, 2017. Local Labor Market Condition and Influenza Vaccination. Atlantic Economic Journal, pp.1-19.
- 23. **Hao J\***, Rodriguez-Monguio R, Seoane-Vazquez E. Fixed-dose combination and single active ingredient drugs: a comparative cost analysis. Expert Rev Pharmacoecon Outcomes Res. 2016;16(1):127-34. PubMed PMID: 26174631.
- 24. **Hao J\***, Rodriguez-Monguio R, Seoane-Vazquez E. Fixed-Dose Combination Drug Approvals, Patents and Market Exclusivities Compared to Single Active Ingredient Pharmaceuticals. PLoS One. 2015 Oct 15;10(10):e0140708. PubMed PMID: 26469277.
- 25. Deng S, Xi Y, Wang H, **Hao J**, Niu X, Li W, Tao Y, Chen G\*. Regulatory effect of Vasoactive Intestinal Peptide on the balance of Treg and Th17 in collagen-induced arthritis. Cell Immunol. 2010; 265(2): 105-10.
- 26. Chen G\*, **Hao J**, Xi Y, Wang W, Wang Z, Li N, et.al. The therapeutic effect of Vasoactive Intestinal Peptide on experimental arthritis is associated with CD4+CD25+ T regulatory cells. Scand J Immunol. 2008; 68(6):572-8.
- 27. Wang W\*, Xi Y, Chen G, **Hao J**, Wang B, Shen T, et.al. Effect of Vasoactive Intestinal Peptide on immune privilege of the rat testis. Journal of Reproduction and Contraception. 2008; 19(1): 1-8.
- 28. Wang H, Xi Y, Deng S, **Hao J**, Li W, Chen G\*. The regulatory effect of Treg on collagen induced arthtitis during VIP treatment. 2010; 26(6): 557-561. (Article in Chinese)

- 29. **Hao J\***, Chen G, Li W. New biologic therapies in rheumatoid arthritis. Review, Chinese Journal of Rheumatology. 2007; 11(2): 111-4. (Article in Chinese)
- 30. Wang W\*, Xi YB, Chen GJ, **Hao J**, Shen TW, Wang BG, et.al. Immunoregulation of Vasoactive Intestinal Peptide on rat Leydig cells. Chinese Journal of Cellular and Molecular Immunology. 2007; 23(8):696-700. (Article in Chinese)
- 31. Wang B, Wang W, Xi Y, Chen G, **Hao J**, Shen T, et. al. The regulation of FasL in rat Leydig cells expression and of their capacity to me diate Jurkat cell apoptosis by Vasocation Intestinal Peptide. Chinese Journal of Immunology. 2007; 23(4): 291-5. (Article in Chinese)
- 32. **Hao J\***, Xi Y, Wang W, Wang B, Jiang L, Chen G, Li W. Vasoactive Intestinal Peptide inhibits the development of experimental arthritis. Current Immunology. 2006; 26(6): 483-7. (Article in Chinese)

#### Working papers (\*corresponding author)

- 1. Scott J. Spencer, Laney K. Jones, Gregory F. Guzauskas, **Jing Hao**, Marc S. Williams, Josh F. Peterson, David L Veenstra\*. Cost-effectiveness of Population-Wide Genomic Screening for Familial Hypercholesterolemia in the United States (under review by JCL)
- Gregory F. Guzauskas, Shawn Garbett, Zilu Zhou, Jonathan S. Schildcrout, John A. Graves, Marc S. Williams, Jing Hao, Laney K. Jones, Scott J Spencer, Shangqing Jiang, David L. Veenstra, Josh F. Peterson\*. The Value of Population Screening for CDC Tier 1 Genomic Conditions (under review by Annals of Internal Medicine)
- 3. Dina Hassen, Alanna Kulchak Rahm, Susan R. Snyder, Mallory Snyder, Brianna Maciejewski, Serena Tripp, Jason Brown, Rosemary Leeming, Aalpen Patel, **Jing Hao\***. Evaluation of a Pilot Implementation of Population-Based Risk Assessment for Breast Cancer Screening and Prevention (in revision for resubmission)
- 4. Priscilla Pichardo, Ryan Hellums, **Jing Hao**, Dina Hassen, Juliann Savatt, Phillip Pellitteri, Madiha Alvi, Adam H. Buchanan and Nicholas Purdy\*. Thyroidectomy Outcomes for Patients after Identification of RET Variant from a Population Genomic Screening Program (in finalization for submission)

#### Conference Presentations (presenters are underlined)

- 1. <u>Jing Hao</u>, Dina Hassen, James M. Gudgeon, Susan R. Snyder, Heather Hampel, Marc S. Williams, Christine Lu, Ravi N. Sharaf, Zachary M. Salvati, Amber Stafford, Rachel Schwiter, Andrea Burnett-Hartman, Jessica Hunter, Victoria Schlieder, Ilene Ladd, Alanna Kulchak Rahm. Using a user-friendly modeling tool to inform and guide local decision-making for Lynch syndrome screening at healthcare systems. Accepted as poster presentation at ISPOR 2022, Washington DC.
- Gregory F. Guzauskas, Shawn Garbett, Zilu Zhou, Jonathan S. Schildcrout, John A. Graves, Marc S. Williams, Jing Hao, Laney K. Jones, Scott J Spencer, Shangqing Jiang, David L. Veenstra, Josh F. Peterson. VALUE of Population Screening for CDC Tier 1 Genomic Conditions. Accepted as poster presentation at ISPOR 2022, Washington DC.
- 3. <u>Alanna Kulchak Rahm, Deborah Cragun, Zachary Salvati, and **Jing Hao**</u>. Methods to the Madness: Three Complementary Methods of Identifying Process and Cost Optimization in Implementation. Panel Session,

- HCSRN 2022, April 12, 2022, Pasadena, CA
- 4. <u>Jing Hao</u>, Dina Hassen, James M. Gudgeon, Susan R. Snyder, Heather Hampel, Marc S. Williams, Ravi N. Sharaf, Christine Y. Lu, Janet L. Williams, Victoria Schlieder, Alanna Kulchak Rahm. "Economic Evaluation of Universal Lynch Syndrome Screening Protocols Among Newly Diagnosed Patients with Colorectal Cancer." Oral presentation, CHPAMS 2021. July 17-18<sup>th</sup>, 2021, Virtual meeting.
- Jing Hao, Dina Hassen, James M. Gudgeon, Susan R. Snyder, Heather Hampel, Marc S. Williams, Ravi N. Sharaf, Christine Y. Lu, Janet L. Williams, Victoria Schlieder, Alanna Kulchak Rahm. "Economic Evaluation of Universal Lynch Syndrome Screening Protocols Among Newly Diagnosed Patients with Colorectal Cancer." iPoster, ISPOR 2021. May 15-19<sup>th</sup>, 2021, Virtual meeting.
- 6. Dina Hassen, Alanna Kulchak Rahm, Susan R. Snyder, Mallory Snyder, Brianna Maciejewski, Serena Tripp, Jason Brown, Jessica Valenti, Rosemary Leeming, Aalpen Patel, <u>Jing Hao</u>. "Evaluation of a Pilot Implementation of Population-Based Risk Assessment for Breast Cancer Screening and Prevention". Poster. AcademyHealth Annual Meeting 2021. June 14-17, 2021, Virtual meeting.
- 7. Dina Hassen, <u>Jing Hao</u>, James M. Gudgeon, Susan R. Snyder, Heather Hampel, Marc S. Williams, Christine Lu, Ravi N. Sharaf, Rachel Schwiter, Andrea Burnett-Hartman, Jessica Hunter, Victoria Schlieder, Alanna Kulchak Rahm. Building a user-friendly modeling tool to inform and guide decision-making for Lynch syndrome screening at local healthcare systems. Poster presentation at 13th Annual Conference on the Science of Dissemination and Implementation in Health. Dec 15-17, 2020. Virtual online.
- 8. Jing Hao, Nan Chen, Dina Hassen, Tracey Klinger, Megan McMinn, Dustin N. Hartzel, David Veenstra, Scott Spencer, Marc Williams, Susan Snyder, Josh Peterson, Victoria Schlieder, <u>Laney Jones</u>. Providers' Prescribing Behavior for Lipid-lowering Therapy after Receiving Patients' Positive Genetic Test for Familial Hypercholesterolemia. Abstract submitted to NLA Scientific Sessions, Dec 11th, 2020, Virtual online.
- Laney K. Jones, Nan Chen, Dina Hassen, Tracey Klinger, Megan McMinn, Dustin N. Hartzel, David Veenstra, Scott Spencer, Susan R. Snyder, Josh F. Peterson, Victoria Schlieder, Marc S. Williams, Jing Hao. Disclosure of a genetic disposition to familial hypercholesteorlemia significantly improves adherence to lipid lowering therapy. Poster, NLA Scientific Sessions, Dec 11th, 2020, Virtual online.
- 10. <u>Gregory F. Guzauska</u>, Shawn Garbett, Zilu Zhou, Scott J. Spencer, Hadley S. Smith, **Jing Hao**, Susan Snyder, Jonathan Graves, Josh Peterson, Marc S. Williams, David L. Veenstra. How much value does cascade testing of first-degree relatives add to population screening for hereditary breast and ovarian cancer? ISPOR, 2020, May 16-20, 2020, Orlando, FL.
- 11. <u>Jing Hao,</u> Nan Chen, Dina Hassen, Tracey Klinger, Megan McMinn, Dustin N. Hartzel, David Veenstra, Scott Spencer, Marc Williams, Susan Snyder, Josh Peterson, Victoria Schlieder, Laney Jones. Providers' Prescribing Behavior for Lipid-lowering Therapy after Receiving Patients' Positive Genetic Test for Familial Hypercholesterolemia. Accepted as Oral Presentation, HCSRN, 2020, April 8-10, Philadelphia, PA (conference canceled due to COVID-19)
- 12. Dina Hassen, Alanna Kulchak Rahm, Susan R. Snyder, Mallory Snyder, Brianna Maciejewski, Serena Tripp, Jason Brown, Rosemary Leeming, Aalpen Patel, <u>Jing Hao</u>. Evaluation of a Pilot Implementation of Population-Based Risk Assessment for Breast Cancer Screening and Prevention. Accepted as Poster Presentation, HCSRN, 2020, April 8-10, Philadelphia, PA (conference canceled due to COVID-19)

- 13. **Jing Hao**, <u>Dina Hassen</u>, James M. Gudgeon, Susan R. Snyder, Heather Hampel, Janet L. Williams, Marc S. Williams, Christine Lu, Ravi N. Sharaf, Victoria Schlieder, Alanna Kulchak Rahm. Economic Evaluation of Universal Lynch Syndrome Screening Strategies Among Newly Diagnosed Patients with Colorectal Cancer. Accepted as Poster Presentation, HCSRN, 2020, April 8-10, Philadelphia, PA (conference canceled due to COVID-19)
- 14. <u>Jing Hao</u>, Susan Snyder. Economic Value of Primary Genomic Screening: The Rational Integration of clinical SEquencing (RISE) Project. Clinical Sequencing Evidence-generating Research (CSER) Consortium 2020. Oral, Feb 5th, 2020, Bethesda, MD.
- 15. <u>Jing Hao,</u> Dina Hassen, David Veenstra, Gregory Guzauskas, Marc Williams, Josh Peterson, Susan Snyder. Can we estimate the economic value of population genomic screening? challenges in estimating BRCA1/2 carriers' uptake of risk-reducing surgeries in general populations. Poster presentation at Society for the 41st Annual Meeting of the Society for Medical Decision Making (SMDM), October 20-23, 2019, Portland, OR
- 16. Scott Spencer, Gregory Guzauskas, Josh Peterson, Marc Williams, Laney Jones, Jing Hao, David Veenstra. Cost Effectiveness of Population-Wide Genomic Screening of Familial Hypercholesterolemia: Importance of FH Patient Statin Uptake and Achieving Target LDL Levels. Poster Presentation, Society for the 41<sup>st</sup> Annual Meeting of the Society for Medical Decision Making (SMDM), October 20-23, 2019, Portland, OR
- 17. <u>Gregory Guzauskas</u>, Scott Spencer, Josh Peterson, Marc Williams, **Jing Hao**, Dina Hassen, Susan Snyder, David Veenstra. Do Decision Tree-Based Cost-effectiveness Models of Hereditary Breast and Ovarian Cancer (HBOC) Screening Introduce a Time Crunch? A Comparison of Modeling Approaches. Oral presentation at Society for the 41<sup>st</sup> Annual Meeting of the Society for Medical Decision Making (SMDM), October 20-23, 2019, Portland, OR
- 18. <u>Jing Hao</u>, Dina Hassen, James M. Gudgeon, et.al. Economic Evaluation of Universal Lynch Syndrome Screening Strategies Among Newly Diagnosed Patients with Colorectal Cancer. Poster Presentation at AcademyHealth Annual Research Meeting, June 2-4, 2019, Washington DC.
- 19. **Jing Hao**, Michael Paglia, Dina Hassen, Qiang Hao, Jove Graham, Matthew Cooper, Susan Snyder. "Economic Burden of Preeclampsia: Maternal and Infant Healthcare Costs", Poster Presentation at 2019 Society for Maternal-Fetal Medicine, February 11-16, 2019, Las Vegas, NV.
- 20. <u>Jing Hao</u>, Dina Hassen, Qiang Hao, Jove Graham, Michael Paglia, Kristina Blessing, Susan Snyder. "Economic burden of preeclampsia: maternal and infant healthcare costs", Poster presentation at 2018 AcademyHealth Annual Research Meeting, June 24-26, 2018, Seattle, WA
- 21. <u>Jing Hao</u>, Dina Hassen, Qiang Hao, Jove Graham, Michael Paglia, Kristina Blessing, Susan Snyder. "Preeclampsia cost of illness: maternal and infant healthcare costs", Poster Presentation at International Society of Pharmacoeconomics and Outcome Research (ISPOR) 23rd Annual International Meeting, May 19-23, 2018, Baltimore, MD
- 22. Jing Hao, James M. Gudgeon, Susan R. Snyder, Janet L. Williams, Marc S. Williams, Christine Lu, Ravi N. Sharaf, Alyson Evans, Deanna Jarrett, Alanna Kulchak Rahm "Economic Evaluation of Universal Lynch Syndrome Screening Among Patients with Colorectal Cancer" Oral Presentation, China Health Policy and Management Society (CHPAMS) 2nd Biennial Conference, May 11-13, 2018 Yale University, New Haven, CT

- 23. Susan Snyder, <u>Jing Hao</u>, Marc Williams. "Generic Cost-Effectiveness Analysis Models: A Tool for Informed Decisionmaking in Precision Medicine" Oral Presentation, China Health Policy and Management Society (CHPAMS) 2nd Biennial Conference, May 11-13, 2018 Yale University, New Haven, CT
- 24. <u>Jing Hao</u>, Susan Snyder. "Generic cost-effectiveness analysis models as a precision medicine decisionmaking tool: a case example". Poster presentation. ISPOR, May 23<sup>rd</sup>, 2017. Boston, MA
- 25. <u>Dina Hassen</u>, Susan Snyder, Steven Chang, **Jing Hao**, Michael Singer, Arti Bhan. Poster presentation. "Can Thyroid Cancer Overdiagnosis, Overtreatment and Costs be Reduced by Following Guidelines?" Health Care System Research Network (HCSRN) Annual Conference, March 22nd, 2017. San Diego, CA
- 26. Susan R. Snyder, Jing Hao, Zhi Geng and Marc S. Williams. Poster presentation. "Precision Medicine Decisionmaking Tool: Generic Cost-Effectiveness Analysis Models". HCSRN, March 22nd, 2017. San Diego, CA
- 27. **Jing Hao,** Susan Snyder, Rebecca Critchley-Thorne. Poster presentation. "A cost-effectiveness analysis of a test that predicts risk of malignant progression in Barrett's Esophagus". HCSRN, March 22nd, 2017. San Diego, CA
- 28. <u>David Diehl</u>, **Jing Hao**, Zhi Geng, Daniel Maeng, Susan Snyder. Poster presentation "Endoscopic Ultrasound and Endoscopic Retrograde Cholangiopancreatography on the Same Patient: A Comparative Cost Analysis of Tandem and Separate Procedures" American College of Gastroenterology 81st Annual Meeting, October 18th, 2016, Las Vegas, Nevada.
- 29. Snyder S, Leeming R, **Hao J**, Rahm A, <u>Geng Z</u> et.al. Poster presentation: "High Risk Breast Clinic –A New Evidence-Based Model for Cancer Risk Assessment and Screening". Enhancing Patient- and Family-Centered Care through Learning, Discovery and Engagement: A Symposium, June 14<sup>th</sup>, 2016, Danville, PA
- 30. <u>Jing Hao</u>, Susan Snyder, Rebecca Critchley-Thorne. Podium presentation: "A cost-effectiveness analysis of a test that predicts risk of malignant progression in Barrett's Esophagus" Research Podium Presentations-Session II: Cancer Outcomes Studies. ISPOR, May 23rd, 2016. Washington DC
- 31. **Jing Hao**, Susan Snyder, <u>Rebecca Critchley-Thorne</u>. Poster presentation: "A Cost-Effectiveness Analysis of a Cancer Risk Prediction Test for Patients with Barrett's Esophagus". Digestive Disease Week (DDW) 2016, May 21, 2016, San Diego, CA
- 32. <u>Jing Hao</u>, Tullika Garg, Susan R. Snyder, Amanda J. Young, H. Lester Kirchner. Poster presentation: "Cost-Minimization Analysis of Risk-Stratified Hematuria Evaluation". Health Care System Research Network (HCSRN) Annual Conference, April 14<sup>th</sup>, 2016, Atlanta, GA
- 33. <u>Daniel Maeng</u>, **Jing Hao**, John Bulger. Poster presentation: "Patterns of Multiple Emergency Department Visits: a Discretionary Care Seeking Behavior?" HCSRN Annual Conference, April 14<sup>th</sup>, 2016, Atlanta, GA
- 34. Snyder S, Leeming R, Rahm A, **Hao J**, et.al. Oral presentation: "High Risk Breast Cancer Clinic A New Risk-Stratified, Evidence-Based and Efficient Patient Care Model". HCSRN Annual Conference, April 14<sup>th</sup>, 2016, Atlanta, GA
- 35. <u>Leeming R</u>, Maney E, Fan A, Rocha H, Koenig J, Rahm A, Snyder S, **Hao J**, et.al. Poster presentation: "Evaluation and Risk Assessment for Breast Cancer: A Integrated Health System Approach". America

- Society of Breast Surgeons (ASBS) Annual Meeting 2016. April 13-17th, 2016. Dallas, Texas
- 36. <u>Jing Hao</u>, Susan Snyder, Steve Chang, Farzan Siddiqui, Jonathan Bock, James Pitcavage et.al. Poster presentation: "Using systematic review and decision modeling to fill gaps in evidence: Application to Positron Emission Tomography (PET) scan use in post-treatment Squamous cell carcinoma of the oropharynx (SCOOP)". HMO Research Network Annual Conference, March 11th, 2015, Long Beach, CA
- 37. <u>Wayne Psek</u>, **Jing Hao**, James Pitcavage. Oral presentation: "Comparison of organizational context across HMORN sites", HMO Research Network Conference, March 12th, 2015, Long Beach, CA
- 38. <u>Jing Hao</u>, Jove H. Graham, James M. Pitcavage, Carl R. Hoegerl, J.B. Jones, Scott R. Taylor, Ashley M. Ryman. Poster presentation: "Measuring adherence and outcome in treatment of multiple sclerosis in the Geisinger Clinic", ISPOR, May 20th, 2015, Philadelphia, PA
- 39. <u>Jing Hao</u>, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez. Poster presentation: "Analysis of combination drugs approved in the US from 1980 to 2010". Public Health System Research Interest Group Meeting, AcademyHealth Annual Research Meeting. June 25th, 2013, Baltimore, MD
- 40. **Jing Hao**, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez. Accepted for Short-oral presentation (but didn't attend): "Analysis of combination drugs approved in the US from 1980 to 2010". International Health Economics Association 9<sup>th</sup> World Congress. July, 2013, Sydney, Australia
- 41. <u>Jing Hao</u>, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez. Oral presentation: "Public Health and Economics of Combination drug- A review of literature". American Public Health Association Annual Meeting. October 30, 2012, San Francisco, CA
- 42. <u>Jing Hao</u>, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez, Rongheng Lin. Oral presentation: "Exploring the Relationship between Drug Patent Life and Drug Approvals". American Public Health Association Annual Meeting. October 31, 2011, Washington DC.
- 43. <u>Jing Hao</u>, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez. Poster Presentation: "Analysis of the generic drugs Approved by the US FDA between 1980 and 2009." Westlake Forum III: Healthcare Reform in China and the US: Similarities, Differences and Challenges. April 10, 2011, Atlanta, GA
- 44. <u>Jing Hao</u>, Rosa Rodriguez-Monguio, Enrique Seoane-Vazquez. Poster Presentation: "Analysis of the generic drugs Approved by the US FDA between 1980 and 2009." American Public Health Association Annual Meeting, November 8, 2010, Denver, CO

#### **Invited Talks**

- 2021 "Precision Health, Healthcare System Perspective". Online Workshop: Ethical, Legal, and Social Implications of Genomics and Precision Medicine: Case of China, University of Nottingham Ningbo, China. July 18th, 2021.
- 2020 "Maternal and Infant Health Care Costs Related to Preeclampsia" Invited as a featured presentation at Thought Leaders Symposium hosted by Preeclampsia Foundation at SMFM meeting Feb 4th, 2020. Dallas, TX.
- 2019 "Economic Evaluation of Precision Healthcare Risk Stratified Cancer Prevention and Treatment Approach". Henry Ford Health System. April 26<sup>th</sup>, 2019. Detroit, MI
- 2018 "Economic Evaluation of Precision Healthcare Risk Stratified Cancer Prevention and Treatment

- Approach". Sidney Kimmel Cancer Center. June 19th, 2018. Philadelphia, PA
- 2017 "A Cost-Effectiveness Analysis of an Adenocarcinoma Risk Prediction Biomarker Test for Patients with Barrett's Esophagus". Department of Epidemiology and Health Services Research, Geisinger Health System. May 8<sup>th</sup>, 2017. Danville, PA
- 2016 "Economic Evaluation of Precision Healthcare Case Examples". Geisinger Health System. July 18<sup>th</sup>, 2016. Danville, PA
- 2016 "Economic Evaluation of Risk Stratified Cancer Prevention Approach- Case Examples". American Cancer Society. April 28<sup>th</sup>, 2016. Via webinar.

#### Teaching Experiences

- 04/2022 Guest Lecturer, "Cost Effectiveness / Decision Analysis" Research Method Course, Clinical Research Program, Geisinger.
- O5/2021 Guest Lecturer, "Cost Effectiveness / Decision Analysis" Research Method Course, Clinical Research Program, Geisinger.
- 05/2019 Guest Lecturer, "Cost Effectiveness / Decision Analysis" Research Method Course, Clinical Research Program, Geisinger.
- 07/2018 Guest Lecturer, "Introduction to Health Economics Research" Research Method Course, Summer Intern Learning Program, Geisinger Health System.
- 04/2017 Guest Lecturer, "Cost Effectiveness / Decision Analysis" Research Method Course, Clinical Research Program, Geisinger Health System.
- Teaching Assistant, "Capstone course (PUBHLTH 490B)", SPHHS, UMass Amherst
- 2011 Guest Lecture, "Introduction to Health Economics (PUBHLTH 490C)", SPHHS, UMass Amherst
- Teaching Assistant, "Human nutrition and performance (KIN110))", SPHHS, UMass Amherst
- 2008 Teaching Assistant, "Maternal-newborn nursing" (NURSING325), School of Nursing, UMass Amherst
- Teaching Assistant, "Nursing care of children" (NURSING326), School of Nursing, UMass Amherst

### Mentoring Experiences

- Nicholas Purdy, DO Clinician, Department of Otolaryngology Head and Neck Surgery, Geisinger Medical Center (2020 - present)
  - I assisted Dr. Purdy on development of his internal grant on topic of "Thyroidectomy outcomes in patients identified with RET proto-oncogene variants through a population genomic screening program". And I am assisting and providing advice in the process of carrying out this research project as well as abstract and manuscript preparations.
- Dina Hassen, MPP -- Biostatistical analyst II, Department of Population Health Sciences, Geisinger (2016
   present)
  - Dina is a staff analyst in my team, I have been working and supervising her on multiple projects that I serve as PI or co-I.

- 3. Apoorva Pradhan, MD, MPH -- Staff Scientist, CPIO, Geisinger (2021-present)
  I have regular meetings with Apoorva to provide mentorship and advice on her research and to provide technical guidance on economic evaluation.
- 4. Natalie Park, PharmD, MS -- Staff Scientist, Steel Institute for Health Innovation, Geisinger (2020-2021) I had regular meetings with Natalie to provide mentorship and advice on her research and experience.
- 5. Julia Schroer, MS, MBA -- Medical student, Geisinger Commonwealth School of Medicine (2020)
  I mentored Julia as a summer intern in my team as part of the Geisinger Commonwealth School of Medicine
  Summer Research Immersion Program (SRIP)
- Nan Chen, MS -- Health Economics Research Analyst, Department of Population Health Sciences, Geisinger (2019-2021)
   Nan was a staff analyst in my team, I have worked and supervised her on two projects that I serve as PI or
- co-I.

  7. Kelly Keenan -- Medical student, Geisinger Commonwealth School of Medicine (2019)
- I mentored Kelly as a summer intern in my team as part of the Geisinger Commonwealth School of Medicine Summer Research Immersion Program (SRIP)
- 8. Zhi Geng, MPH -- Health Economics Research Analyst, Department of Epidemiology and Health Services Research, Geisinger (2016-2018)

#### Professional Memberships

- 2015-- International Society of Pharmacoeconomics and Outcome Research (ISPOR)
- 2014-- Health Care System Research Network (HCSRN)
- 2010-- AcademyHealth
- 2009-- China Health Policy and Management Society (CHPAMS)
- 2009-2014 American Public Health Association (APHA), 2009 2014

#### **Professional Services**

2020	Invited to join the NIH Early Career Reviewer program
2017-2022	Delivery System Science Fellowship (DSSF) Applicant Review Committee, AcademyHealth
2019, 2022	Co-lead the coordination of AcademyHealth DSSF Host Site Participation
2017-2019	Coordinate/Steer the Departmental "Work in Progress" Seminars, Department of Epidemiology and Health Services Research, Geisinger
2016	Moderator, Health Services, Health Policy and Cost concurrent session, Health Care System Research Network (HCSRN) Annual Conference
2016	Member of the Reviewer Group, Precision Medicine and Advanced Therapies Special Interest Group, ISPOR
2016	Member of the Review Group, Oncology Health Economic Modeling - Post-Progression Working Group, ISPOR
2014	Member, Health Care System Research Network (HCSRN) Head and Neck Cancer Scientific

#### Interest Group

2013 Panelist, Health Policy and Management Doctoral Seminar Series, UMass Amherst

2012-2016 Editor, CHPAMS monthly newsletter

2012 Interviewer, China Health Review, CHPAMS

2012 Session Discussant, Westlake Youth Forum 2012, Hangzhou, China

2011 Session Interpreter, Westlake Forum III: Healthcare Reform in China and the US: Similarities,

Differences and Challenges. Atlanta, GA

2010-- Planning Committee Member, China Health Policy and Management Society (CHPAMS)

## Referee Services (numbers in parentheses indicate the year and the number of manuscripts/abstracts reviewed):

Genetics in Medicine (2020:1; 2021:1)

Value in Health (2018:1; 2021:1; 2022:1)

Journal of Personalized Medicine (2021:1)

ClinicoEconomics and Outcomes Research (2017:4; 2018:3; 2019:1; 2021:1)

American Journal of Preventive Medicine (2022:1)

The Journal of Health Care Organization, Provision, and Financing (INQUIRY) (2017:1; 2021:1)

Journal of Maternal-Fetal & Neonatal Medicine (2020:1)

The Permanente Journal (2018:1)

Patient Preference and Adherence (2017:1)

Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy (2017:1)

IEEE Journal of Biomedical and Health Informatics (2017:1)

BMC Health Services Research (2015:1; 2016:9)

Puerto Rico Health Sciences Journal (2017:1)

Research Abstract Review Committee, Health Care System Research Network (HCSRN) (2015: 10)

International Society of Pharmacoeconomics and Outcome Research (ISPOR) Annual International Meeting:

Issue Panel Review Committee (2016: 12)

Research Abstract Review Committee (2017:15)

Research Abstract Congress Review Committee, ISPOR Annual European Congress (2016: 18; 2017:21)

Research Abstract Congress Review Committee, ISPOR Asia-Pacific Conference (2018: 16)

Abstract Review Committee, China Health Policy and Management Society Annual Symposium 2021

#### Awards and Honors

2017	Early Career	Investigator Awa	ra, Health (	Care System	Research Network	(HCSKN)
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- Volunteer of the Year Award, China Health Policy and Management Society (CHPAMS)
- New Investigator Research Presentation Award finalist, International Society of Pharmacoeconomics and Outcome Research (ISPOR) 21st Annual International Meeting
- 2013 Public Health System Research (PHSR) Student Scholarship, AcademyHealth and the Robert Wood Johnson Foundation (Mentor: Dennis Ross-Degnan, Sc.D.)

2012	Me	dical Care Section Student Presentation Award, American Public Health Association
2012	Wes	stlake Youth Forum Fellowship, China Medical Board (CMB) and Zhejiang University
2011	Wes	stlake Forum III Travel Expenses Scholarship
2006	Uni	versity Scholarship for Outstanding Student, Shanghai Jiaotong University School of Medicine
2000 – 20	002	University Scholarship for Outstanding Student 2000, 2001 & 2002, Shanxi Medical University