

Curriculum Vitae

Natalia Kunst

Post-doctoral Research Fellow

Harvard Medical School and Harvard Pilgrim Health Care Institute

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Summary

I am currently a Postdoctoral Research Fellow in the Department of Population Medicine at Harvard Medical School and Harvard Pilgrim Health Care Institute. My research focuses on applying decision-analytic and statistical methods in cancer, genetics and precision medicine to assess and identify efficient strategies that would improve patients' health outcomes, and to design and prioritize clinical research in limited-resource settings. In my PhD work, I formalized an iterative decision-making framework in health and medicine that propagated the principles of evidence-based medicine and highlighted the importance of iteration in the process of medical decision making. When formalizing this framework, I became aware of the challenges associated with the assessment of cost-effectiveness and decision making in precision medicine. Thus, for my post-doctoral training, I moved to Harvard University to gain new skills and expertise in the area of genomics and precision medicine, also focusing on health disparities. More specifically, I was awarded Thomas O. Pyle Fellowship and joined the Precision Medicine Policy and Treatment (PreEMPT) Modeling team that works on simulating short- and long-term clinical benefits and estimating the cost-effectiveness of integrating different genome screening strategies into clinical care for healthy or high-risk newborns for a wide variety of heritable conditions.

I am also a Research Affiliate at the Yale University School of Public Health. I co-founded and have co-lead the Collaborative Network for Value of Information (ConVOI), which is an international group of over 20 researchers with interests in the application and development of methods for value of information calculation. I completed my PhD in Health Economics and Health Policy at the University of Oslo, Norway, and was a Postgraduate Research Fellow at Yale University School of Medicine and a Visiting PhD Candidate at Yale School of Public Health. Prior to my PhD, I worked as a Senior Health Economist at LINK Medical Research, Norway, developing and adapting decision-analytic models and preparing Health Technology Assessment (HTA) applications predominantly in cancer in collaboration with the Norwegian Medicines Agency.

Education

- 2017 – 2021 PhD in Health Economics and Health Policy, Department of Health Management and Health Economics, Faculty of Medicine, University of Oslo, Norway
- Dissertation title: Evidence and uncertainty in an iterative decision-making framework in health and medicine*
- PhD Advisors: Eline Aas, Veerle Coupe, Karen M. Kuntz*
- PhD Mentors: A. David Paltiel, Cary P. Gross, Fernando Alarid-Escudero*
- 2009 – 2011 Master’s degree in European Studies with a major in Economics and EU Finance, Department of Economics, Gdansk University of Technology, Poland. *Graduated with Rector’s Gold Medal*
- 2009 – 2011 Master’s degree in Management with a major in Finance and Accounting, Department of Economics and Economic Policy, Gdynia Maritime University, Poland
- 2006-2009 Bachelor’s degree in European Studies with a specialization in Economics, Department of Economics, Gdansk University of Technology, Poland

Positions and Employment

- 2021 – present Post-doctoral Research Fellow, Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Health Care Institute, USA
Thomas O. Pyle Fellowship Awardee
- 2020 – present Research Affiliate, Department of Health Policy and Management, Yale University School of Public Health, USA
- 2019 – 2020 Postgraduate Research Fellow, Cancer Outcomes, Public Policy and Effectiveness Research Cancer Center (COPPER), Department of Internal Medicine, Yale University School of Medicine, USA
- 2018 – 2020 Visiting PhD Candidate, Department of Health Policy and Management, Yale University School of Public Health, USA
- 2017 – 2020 PhD Candidate in Health Economics and Health Policy with concentration in Health Decision Science, Department of Health Management and Health Economics, Faculty of Medicine, University of Oslo, Norway
- 2017 – 2020 Research Fellow, Department of Epidemiology and Data Science, Amsterdam University Medical Centers, The Netherlands

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| 2016 – 2020 | Senior Health Economist, Link Medical Research in Oslo, Norway |
| 2015 – 2016 | Health Economist, Link Medical Research in Oslo, Norway |
| 2014 – 2015 | Economic Consultant, Health Institute ARKEN in Oslo, Norway |
| 2012 – 2013 | Research Intern, NIFU Nordic Institute for Studies in Innovation, Research and Education, Norway |

Academic Honors and Awards

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| 2021 | Thomas O. Pyle Fellowship awarded by the Harvard University and Harvard Pilgrim Health Care Foundation |
| 2020 | Award for the best short course at the 2019 Society for Medical Decision Making (SMDM) North American Meeting for the course titled “Research Prioritisation and Study Design Using Value of Information Analysis” |
| 2019 – 2020 | Overseas research scholarship from the Research Council of Norway during Research Fellow position at the Yale University School of Medicine |
| 2017 – 2020 | PhD scholarship from the Research Council of Norway, LINK Medical Research and the University of Oslo |
| 2011 | Award for the best master’s thesis in Labor Economics, “due to a comprehensive and multi-aspect analysis and thesis” organized by the Regional Labor Office in Gdansk, Poland |
| 2011 | Graduated with Gold medal for outstanding academic results and scientific research during the master’s program from the Rector of Gdansk University of Technology, Poland, and final master’s grade A+ |
| 2011 – 2012 | Rector's scholarship for excellent results in courses at the PhD level in Economics (Average course grade: A) |
| 2006 – 2011 | Rector's scholarship for excellent results during the bachelor’s degree study and both master’s degree programs (Average grade: A) |

Other Relevant Academic Training

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| 2021 | C/C++ - Introduction to Programming with C and Introduction to Programming with Python, City, University of London |
| 2018 | Courses in Policy Modeling and Advanced Topics in Modeling Health Care Decisions, Yale Schools of Management and Public Health (Auditor) |

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| 2018 | Decision Modelling Using R, The Hospital for Sick Children Research Institute, Toronto, Canada |
| 2016 | Training in Health Economics, Decision Analytic Modelling for Economic Evaluation, University of York, the UK |
| 2016 | Courses in VBA Programming, University of Oxford, the UK |
| 2011 – 2014 | Various courses at the PhD level in Economics, Department of Economics, Gdansk University of Technology, Poland, and courses in Social Sciences at the University of Oslo, Norway |

Manuscripts Published and in Press

1. Richman IB, Long JB, **Kunst N**, Kyanko K, Xu X, Busch S, Gross CP. Trends in breast cancer costs among privately insured women, 40-64. *JAMA Internal Medicine*. 2021. doi:10.1001/jamainternmed.2021.4832
2. Jongeneel G, Greuter MJE, **Kunst N**, van Erning FN, Koopman M, Medema JP, Vermeulen L, Vink GR, Punt CJA, Coupé VMH. Early cost-effectiveness analysis of risk-based selection for adjuvant treatment in stage II colon cancer: the potential of consensus molecular subtypes. *Cancer Epidemiology, Biomarkers & Prevention*. 2021. doi:10.1158/1055-9965.EPI-21-0078
3. **Kunst N**, Long JB, Xu X, Busch SH, Kyanko KA, Lindau ST, Richman IB, Gross CP. Understanding variation in the cost of breast cancer screening among privately insured women in the US. *Medical Care*. 2021. doi:10.1097/MLR.0000000000001506
4. Richman IB, Long JB, Hoag JR, Upneja A, Hooley R, Xu X, **Kunst N**, Aminawung JA, Kyanko KA, Busch SH, Gross CP. Comparative effectiveness of digital breast tomosynthesis for breast cancer screening among women 40-64 years old. *JNCI: Journal of the National Cancer Institute*. 2021. doi:10.1093/jnci/djab063
5. Heath A, Strong M, Glynn D, **Kunst N**, Welton N, Goldhaber-Fiebert JD. Simulating Study Data to Support Expected Value of Sample Information Calculations: A Tutorial. *Medical Decision Making*. 2021. doi:10.1177/0272989X211026292
6. Tuffaha H, Rothery C, **Kunst N**, Jackson C, Strong M, Birch S. A review of web-based tools for value of information analysis. *Applied Health Economics and Health Policy*. 2021. doi:10.1007/s40258-021-00662-4
7. Upneja A, Long JB, Aminawung JA, Kyanko KA, **Kunst N**, Xu X., Busch SH, Gross CP, Richman IB. Comparative effectiveness of digital breast tomosynthesis and mammography among older women. *Journal of General Internal Medicine*. doi:10.1007/s11606-021-07132-6
8. **Kunst N**, Wang SY, Hood A, Mougalian SS, DiGiovanna MP, Adelson K, Pusztai L. Cost-effectiveness of different neoadjuvant followed by adjuvant treatment strategies for women with

- HER2-positive breast cancer. *JAMA Network Open*. 2020.
doi:10.1001/jamanetworkopen.2020.27074
9. **Kunst N**, Alarid-Escudero F, Aas E, Coupe VMH, Schrag D, Kuntz KM. Estimating population-based recurrence rates of colorectal cancer over time in the US. *Cancer Epidemiology, Biomarkers & Prevention*. 2020. doi:10.1158/1055-9965.EPI-20-0490
 10. **Kunst N**, Gross CP. Breast Cancer Screening and Health Care Costs—Reply. *JAMA Internal Medicine*. 2020. doi:10.1001/jamainternmed.2020.2355
 11. Kim DD, Silver MC, **Kunst N**, Cohen JT, Ollendorf D, Neumann PJ. Perspective and costing in cost-effectiveness analysis, 1974-2018. *PharmacoEconomics*. 2020. doi:10.1007/s40273-020-00942-2
 12. **Kunst N**, Long JB, Xu X, Busch SH, Kyanko KA, Richman IB, Gross CP. Use and costs of breast cancer screening for women in their 40s in a privately insured US population. *JAMA Internal Medicine*. 2020. doi:10.1001/jamainternmed.2020.0262
 13. **Kunst N**, Wilson E, Glynn D, Alarid-Escudero F, Baio G, Brennan A, Fairley M, Goldhaber-Fiebert JD, Jackson C, Jalal H, Menzies NA, Strong M, Thom H, Heath A. Computing the expected value of sample information efficiently: Practical guidance and recommendations for four model-based methods. *Value in Health*. 2020. **Editors' Choice**. doi:10.1016/j.jval.2020.02.010
 14. Heath A, **Kunst N**, Jackson C, Strong M, Alarid-Escudero F, Goldhaber-Fiebert JD, Baio G, Menzies NA, Jalal J. Calculating the Expected Value of Sample Information in Practice: Considerations from Three Case Studies. *Medical Decision Making*. 2020.
doi:10.1177/0272989X20912402
 15. **Kunst NR**, Alarid-Escudero F, Paltiel AD, Wang SY. A value of information analysis of research on the 21-gene assay for breast cancer management. *Value in Health*. 2019. **Editors' Choice**.
doi:10.1016/j.jval.2019.05.004
 16. **Kunst NR**, Lindvik H, Carlsen KH, Haaland G, Jørgensen E, Carlsen KCL. Cost-effectiveness of diagnostic algorithms for peanut allergy in children. *Journal of Allergy and Clinical Immunology*. 2019. doi:10.1016/j.jaci.2018.10.050

Submitted Manuscripts

1. **Kunst N**, Stout NK, O'Brien G, Christensen KD, McMahon PM, Wu AC, Diller L, Yeh JM. Population-based TP53 variant screening: Cost-effectiveness and clinical benefit of newborn screening for Li-Fraumeni syndrome. (*Revised and resubmitted to JNCI*)
2. Dijk SW, Krijkamp EM, **Kunst N**, Gross P, Wong JB, Hunink MGM. Emerging Therapies for COVID-19: the value of more clinical research compared to immediate implementation. (*Revise and resubmit*)
3. Yang SC, **Kunst N**, Gross CP, Wang JD, Su WC, Wang SY. Cost-effectiveness of nivolumab plus ipilimumab versus chemotherapy for non-small cell lung cancer. (*Under review*)

4. Wolff HB, Qendri V, **Kunst N**, Alarid-Escudero F, Coupé VMH. Methods for communicating the impact of parameter uncertainty in a multiple strategies cost-effectiveness comparison. (*Under review*)
5. Goshua G, Sinha P, **Kunst N**, Pischel L, Lee A, Cuker A. Cost-effectiveness of second-line therapies in adults with chronic immune thrombocytopenia (*Submitted*)

Books in Preparation

Heath A, **Kunst N**, Jackson C (Eds.). Value of Information for Healthcare Decision Making. Chapman & Hall/CRC

Selected Ongoing Projects

1. **Kunst N**. Newborn genetic screening for a wide variety of heritable conditions: Benefits, harms, costs, racial disparities, and value of further research. Within PreEMPT project, Kunst leads several subprojects as part of her Pyle Fellowship. Further, Kunst is involved in the PreEMPT grant renewal application. If funded, Kunst will lead one of the three aims of the PreEMPT II grant, which will focus on applying decision-analytic modeling, distributional cost-effectiveness analysis and value of information analysis to incorporate social determinants of health, examine disparities and evaluate strategies for newborn genetic screening to reduce disparities by accounting for race. This work is conducted together with the PreEMPT team: Drs. Wu AC (PI), McMahon PM, Christensen KD, Yeh JM, Stout NK, Diller L, Green, R, Lu C, Young J, Zawatsky C.
2. **Kunst N**, Paltiel AD, Ross JS, Wallach JD, Mougalian SS, Gross CP, Gonsalves G. Quantifying uncertainty in FDA accelerated approvals for cancer drugs: A case study of pertuzumab in HER2-positive breast cancer.
3. **Kunst N**, Koffijberg E, Rothery C, Drummond M, Husereau D, Grutters J, Grimm S, Heath A. Value of information CHEERS extension (VOICE) checklist.
4. **Kunst N**, Kuntz K, Burger E, Coupe V, Aas E. Formalizing an iterative decision-making framework in health and medicine.
5. Wilson E, Heath A, Coyle D, Tuffaha H, Goldhaber-Fiebert JGF, Rothery C, Strong M, Menzies NA, **Kunst N**. A User-Friendly educational tool to interpret the shape of value of information curves: the relationship between incremental cost-effectiveness and value of information results.
6. Chehayeb R, Wang S, Adelson K, Mougalian S, Hood A, Lustberg M, Greenup R, Puzstai L, **Kunst N**. Real-world treatment patterns and costs of metastatic breast cancer care in the USA using Flatiron Health data.

Invited Talks and Seminars

1. **Kunst N**. Introduction to health decision science. Harvard Radiation Oncology Program Summer Lecture Series. Harvard Medical School. 2021

2. **Kunst N.** Value of information in medical decision making. Cancer Intervention and Surveillance Modeling Network (CISNET) workshop. 2021
3. **Kunst N.** Value of Information analysis in medical decision making. Professional Society for Health Economics and Outcomes Research (ISPOR). 2021
4. **Kunst N.** Assessing the state of the evidence and quantifying the value of further research on the 21-gene assay for breast cancer management: A value of information analysis. Health Economics Research Group. University of Oslo, Norway. 2020
5. **Kunst N.** Newborn screening for the TP53 mutation: Research design and prioritization. the Precision Medicine Prevention and Treatment (PreEMPT) Modeling Research Group. Harvard Medical School. 2020
6. **Kunst N.** Quantifying the value of further research to improve 21-gene assay decision-making in breast cancer. University of Toronto, THETA Rounds, Toronto, Canada. 2020
7. **Kunst N.** Value of Information analysis in medical decision making. Harvard Medical School & Harvard Pilgrim Health Care Institute, Boston, USA. 2020
8. **Kunst N.** Value of Information analysis in medical decision making. Guest lecture in A. David Paltiel's course titled "Cost-Effectiveness Analysis and Decision Making [HPM 570]", Yale University School of Public Health, USA. 2019
9. **Kunst N.** Assessing the state of the evidence and quantifying the value of further research on the 21-gene assay for breast cancer management: A value of information analysis. Health Economics Research Group. University of Oslo, Norway. 2020
10. **Kunst N.** Newborn screening for the TP53 mutation: Research design and prioritization. the Precision Medicine Prevention and Treatment (PreEMPT) Modeling Research Group. Harvard Medical School. 2020
11. **Kunst N.** Quantifying the value of further research to improve 21-gene assay decision-making in breast cancer. University of Toronto, THETA Rounds, Toronto, Canada. 2020
12. **Kunst N.** Value of Information analysis in medical decision making. Harvard Medical School & Harvard Pilgrim Health Care Institute, Boston, USA. 2020
13. **Kunst N.** Value of Information analysis in medical decision making. Guest lecture in A. David Paltiel's course titled "Cost-Effectiveness Analysis and Decision Making [HPM 570]", Yale University School of Public Health, USA. 2019
14. **Kunst N.** Diagnosing peanut allergy in children: A cost-effectiveness analysis of diagnostic algorithms. Molecular Allergy User Meeting 2019. Thermo Fisher Scientific, London, the UK. 2019
15. **Kunst N.** Finding the optimal diagnostic algorithm for children with peanut allergy: A cost-effectiveness study. Phadia/Thermo Fisher Scientific, Uppsala, Sweden. 2019
16. **Kunst N.** A comprehensive value of information analysis to assess the state of the evidence and quantify uncertainty on the use of 21-gene assay Oncotype DX. Tufts Medical Center CEVR, Boston, USA. 2019

17. **Kunst N.** What is the value of further research on the 21-gene assay for breast cancer management? Center for Health Decision Science. Harvard T.H. Chan School of Public Health, Boston, USA. 2018
18. **Kunst N.** Decisions on further research for 21-gene assay in real-world management of breast cancer: A value of information analysis. Yale School of Public Health (Crawford lab), New Haven, USA. 2018

Conference Presentations

1. **Kunst N,** Stout NK, O'Brien G, Christensen KD, McMahon PM, Wu AC, Diller L, Yeh JM. Population-based newborn screening for Li-Fraumeni syndrome: Cost-effectiveness, clinical benefits and value of additional information. 43rd Annual Meeting of the Society for Medical Decision Making, Virtual Meeting, 2021. *Accepted for Oral Presentation and selected as a Lee B. Lusted Award Finalist*
2. **Kunst N,** Stout NK, O'Brien G, Christensen KD, McMahon PM, Wu AC, Diller L, Yeh JM. Clinical benefits, cost-effectiveness and value of further research for population-based newborn screening for Li-Fraumeni syndrome. American Society of Human Genetics (ASHG) Virtual Meeting, 2021. *Accepted for Poster Presentation*
3. **Kunst N,** Paltiel AD, Ross JS, Wallach JD, Stout NK, Rothery C, Glynn D, Ciani O, Mougalian SS, Gross CP, Gonsalves G. Evidence underlying FDA cancer drug approvals: A value of information analysis. 42nd Annual Meeting of the Society for Medical Decision Making, Virtual Meeting, 2020. *Oral Presentation*
4. **Kunst N.** Symposium: Networks to Improve Medical Decision Making. 42nd Annual Meeting of the Society for Medical Decision Making, Virtual Meeting, 2020. *Symposium Moderator*
5. **Kunst N.** Career Development Panel: Building Relationships with Policy Makers. 42nd Annual Meeting of the SMDM, Virtual Meeting, 2020. *Panel Moderator*
6. **Kunst N,** Aas E, Wang SY, Alarid-Escudero F, Yaesoubi R, Kuntz KM, Coupe VMH. Real-World Data in Model-Based Economic Evaluations Using Statistical and Mathematical Modeling: A Systematic Literature Review. 18th Biennial European Conference, Berlin, Germany. *Oral Presentation (Conference canceled)*
7. **Kunst N,** Long J, Xu X, Busch S, Kyanko K, Stout NK, Lindau ST, Richman IB, Gross CP, Resource Utilization and Costs of Breast Cancer Screening Among Privately Insured Women in Their 40s in the US. 18th Biennial European Conference, Berlin, Germany. *Oral Presentation (Conference canceled)*
8. **Kunst N,** Heath A, Koffijberg H, Dimaras H, Issue Panel: Research Prioritisation to Reduce Uncertainty in Decision Making for Patients, Providers and Policy Makers. 18th Biennial European Conference, Berlin, Germany. *Oral Presentation (Conference canceled)*
9. **Kunst N,** Wang SY, Hood A, Mougalian SS, DiGiovanna MP, Adelson K, Pusztai L. Cost-effectiveness of different neoadjuvant followed by adjuvant treatment strategies for women

- with HER2-positive breast cancer. San Antonio Breast Cancer Symposium, San Antonio, USA, 2019. *Spotlight Session Poster Presentation*
10. **Kunst N.** Overview of various recommendations for health economic perspective. Symposium: Value for whom? Choice and Consequences of Perspective in Economic Evaluations. Panelists: Grosse S, Kunst NR, Chen YH, Kim DD; moderator: Wisløff T. 41st Annual Meeting of the SMDM, Portland, OR, USA, 2019. *Oral Presentation*
 11. **Kunst N,** Wilson E, Alarid-Escudero F et al. Practical Considerations for the Efficient Computation of the Expected Value of Sample Information to Prioritize Research in Health Care. 41st Annual Meeting of the SMDM, Portland, OR, USA, 2019. *Poster Presentation*
 12. **Kunst N,** Alarid-Escudero F, Aas E, Coupe V, Kuntz KM. Real-World Recurrence Rates of Colorectal Cancer over Time. 41st Annual Meeting of the Society for Medical Decision Making, Portland, OR, USA, 2019. *Poster Presentation*
 13. **Kunst N,** Coyle D. Oral Presentation Session: Value of Information. 41st Annual Meeting of the Society for Medical Decision Making, Portland, OR, USA, 2019. *Session Co-chair*
 14. **Kunst N,** Long JB, Xu X, Busch SH, Kyanko KA, Richman IB, Gross CP. Utilization and costs of breast cancer screening for women in their 40s in a privately insured US population. ASCO Quality Care Symposium, San Diego, USA, 2019. *Poster Presentation*
 15. **Kunst N,** Alarid-Escudero F, Paltiel AD, Wang SY. Decisions on further research for 21-gene assay in breast cancer management: A value of information analysis. 40th Annual North American Meeting of the Society for Medical Decision Making, Montreal, Canada, 2018. *Poster Presentation: Lee B. Lusted Award Finalist*
 16. **Kunst N,** Lindvik H, Carlsen KH, Haaland G, Jørgensen E, Carlsen KCL. Diagnosing peanut allergy in children: A cost-effectiveness analysis of diagnostic algorithms. 40th Annual North American Meeting of the Society for Medical Decision Making, Montreal, Canada, 2018. *Oral Presentation*
 17. **Kunst N.** Health economic modeling to determine the optimal diagnostic algorithm for nut allergy [*in Norwegian*]. The National Conference on Asthma and Allergy, Norwegian Directorate of Health, Oslo, Norway, 2017. *Invited Oral Presentation*

Supervision

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| 2020 – present | Tara Knauss, a graduate student at the University of Oslo <i>Master's thesis working title: HPV self-sampling compared with reminder letters to increase participation of cervical cancer screening: A cost-effectiveness analysis of the EQUALSCREEN randomized trial</i> Role: Co-supervisor together with Dr. Emily A. Burger |
| 2020 – June 2021 | Jacklyn Gillian D'Costa, a graduate student at the University of Oslo <i>Master's thesis title: The health and economic impacts of switching from the bivalent to the nonavalent HPV vaccine in Norway: A model-based analysis</i> |

Role: Co-supervisor together with Dr. Emily A. Burger

2020 – June 2021

Kari Bårdstu Kollstad, a graduate student at the University of Oslo

Master's thesis title: Cost-effectiveness analysis of lung cancer screening with low-dose CT in Norway

Role: Co-supervisor together with Drs. Emily A. Burger and Ivar S. Kristiansen

Ongoing Research Support

Thomas O. Pyle Fellowship created by the Harvard University and the Harvard Pilgrim Health Care Foundation 2021-2022

Role in the project: *Principal Investigator*

The Fellowship provides \$58,000 for one year salary support, research-related expenses and professional allowance. As part of this Fellowship, the Awardee joined the Precision Medicine Policy and Treatment (PreEMPT) Modeling team that works on simulating short- and long-term clinical benefits and estimating the cost-effectiveness of integrating different genome screening strategies into clinical care for healthy or high-risk newborns for a wide variety of heritable conditions. Through this Fellowship, the Awardee will gain new skills and expertise in the area of genomics and precision medicine.

SMDM COVID-19 Decision Modeling Initiative (CDMI) Grant

Role in the project: *Co-investigator*

Research grant of \$50,000 awarded for the project titled: Emerging Therapies for COVID-19: the value of more clinical trials vs implementation. The overall aim is to inform and guide the decision whether to await the results from more RCTs of COVID-19 therapies prior to implementation using a value of information analysis. **PI:** Dr. Hunink

Pending Research Support

Precision Medicine Policy and Treatment Model (PreEMPT) II (Submitted November 2021)
NIH/NICHD R01

Role in the project: *Co-investigator and Aim 3 Lead*

The overall objective of our proposed research is to create the Precision Medicine Policy and Treatment Model (PreEMPT) II, by leveraging the tools, progress, and model developed in PreEMPT I to examine when and how best to integrate genomic sequencing (GS) into newborn care. We plan three broad extensions of our existing microsimulation model used in PreEMPT I. First, PreEMPT II will better estimate the clinical benefits, risks, and cost consequences associated with universal newborn GS screening, through more detailed simulation of health outcomes in adulthood. Second, we will refine our approach to evaluating targeted screening of siblings of newborns with identified pathogenic variants. Third, we will include race/ethnicity in PreEMPT II, with the goal of identifying opportunities to diminish race-based inequities in disease outcomes. **PI:** Dr. Wu

Completed Research Support

Research Council of Norway/LINK Medical Research/University of Oslo 2017-2020 (Grant ID: 276146)

Role in the project: *Principal Investigator / PhD Candidate*

Research grant of \$500,000 awarded for an up to 4-year PhD position under Industrial PhD scheme. The PhD project aims to promote a more formal understanding of information and evidence-based approaches to decision-making in health and medicine by advancing the methods of statistical decision theory, model-based cost-effectiveness analysis, and clinical trial design. Grant application: Kunst N.

Research Council of Norway 2019-2020 (Grant ID: 304034)

Role in the project: *Principal Investigator / Postgraduate Research Fellow at Yale School of Medicine*

Overseas research grant of \$15,000 for a Research Fellow position at the Yale University School of Medicine. Grant application: Kunst N.

Teaching Experience

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| Summer 2021 | Teaching Fellow for Methods for Decision Making in Medicine [RDS288], Harvard T.H. Chan School of Public Health, USA. <i>Course Faculty: Myriam Hunink</i> |
| May 2021 | Course Faculty in CISNET workshop titled Value of Information in Medical Decision Making. <i>Other Course Faculty: Fernando Alarid-Escudero</i> |
| May 2021 | Course Faculty in Society of Clinical Trials short course titled Designing Clinical Research to Inform Decision-Making using Value of Information. <i>Other Course Faculty: Anna Heath, Nicky Welton</i> |
| Spring 2021, 2020 | Lecturer in Health Economic Evaluation, courses Health Economics I [HØKON2001] and Health Economics II [HØKON3001], University of Oslo, Faculty of Medicine, Norway |
| Fall 2021, 2020 | Lecturer in Modeling in Economic Evaluation II [HEVAL5130], University of Oslo, Faculty of Medicine, Norway |
| Summer 2020 | Teaching Fellow for Decision Analysis in Clinical Research [RDS286], Harvard T.H. Chan School of Public Health. <i>Course Faculty: Uwe Siebert</i> |
| Spring 2020, 2019 | Teaching Fellow for Advanced Topics in Decision-making in Medicine [EWP02], Erasmus University Medical Center, the Netherlands. <i>Course Faculty: Myriam Hunink</i> |
| 2020, 2019 | Course Faculty in SMDM short course titled AM5 - Research Prioritisation and Study Design Using Value of Information Analysis. <i>Other Course</i> |

Faculty: Anna Heath, Hawre Jalal, Fernando Alarid-Escudero. Course Director: Jeremy D. Goldhaber-Fiebert

Awarded best short course of the 2019 SMDM North American Meeting

- 2020, 2019 Course Faculty in SMDM short course titled PM3 - Optimal Research Design Using Value of Information. *Other Course Faculty: Jeremy D. Goldhaber-Fiebert, Hawre Jalal, Fernando Alarid-Escudero. Course Director: Anna Heath*
- Fall 2019 Teaching Fellow for the graduate-level course Cost-Effectiveness Analysis and Decision Making [HPM 570], Yale University School of Public Health, USA. *Course Faculty: A. David Paltiel*
As part of this work, in addition to regular Teaching Fellow responsibilities, including review sessions, grading, and one-on-one tutoring with students, I held tutorial sessions in decision-analytic modeling and a guest lecture on value of information analysis.
- 2019 Teaching Fellow for Cost-Effectiveness Analysis and Decision Modeling in R, the University of Minnesota School of Public Health, USA. *Course Faculty: Fernando Alarid-Escudero, Eva Enns*

Professional Memberships and Activities

- 2021 Member of the Nominating Committee at the SMDM
- 2020 – present Co-chair of the Digital Communication Committee at the Society for Medical Decision Making
- 2020 – present Co-chair of the Social Media Committee at the Society for Medical Decision Making
- 2020 – present Member of the Stanford-CIDE Coronavirus Simulation Modeling (SC-COSMO) group. <https://www.sc-cosmo.org>
- 2019 – present Member of the Early Career Development Committee at the Society for Medical Decision Making
- 2019 – present Member of the Professional Society for Health Economics and Outcomes Research (ISPOR)
- 2019 – present Peer reviewer for Journal of Clinical Oncology (JCO), JNCI: Journal of the National Cancer Institute, Cancer Epidemiology, Biomarkers & Prevention, Value in Health, Medical Decision Making (MDM), Pharmacoeconomics, Taylor & Francis Group: Cost-Effectiveness Analysis in HTA Using R

- 2018 – present Founding Member of the Collaborative Network for Value of Information (ConVOI). <https://www.convoi-group.org>
- 2018 – present Member of the Society for Medical Decision Making (SMDM)

Other

- Language: English (proficient), Norwegian (proficient), Polish (native)
- Voluntary jobs:
- Norwegian Cancer Society (Kreftforeningen) helping and supporting vulnerable cancer patients and their families
 - MiRA Center promoting equality among minority women from Middle East residing in Norway
 - Voluntary Club in Frombork, Poland, helping socioeconomically disadvantaged and handicapped children
- Awarded in competition “Eight Magnificent” for workers intensively involved in helping others and for responsible, emphatic, discreet, and sympathetic abilities in work with other*
- Hobby: Reading non-fiction, bicycling/spinning, skiing & snowboarding, hiking, swimming

References

A. David Paltiel

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Cary P. Gross

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Eivind Jørgensen

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Oecon AS, Norway
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Ann Chen Wu

Associate Professor
Harvard Medical School and
Harvard Pilgrim Health Care
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Jeremy D. Goldhaber-Fiebert

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Emily A. Burger

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Karen M. Kuntz

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Ankur Pandya

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Anna Heath

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