



Chloe Nobuhara

Masters Student in Epidemiology and Clinical Research, admitted Autumn 2025

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BIO

Chloe Nobuhara is a fourth year general surgery resident at Stanford University, currently doing two years of research in the application of artificial intelligence in the operating room. Her projects include computer vision pipelines for automated performance assessment, the use of ambient intelligence for operational efficiency, and the use of automated documentation for burnout reduction. She completed her undergraduate studies at Northeastern University and her MD at Duke University School of Medicine. She is also concurrently in a Masters in Epidemiology with a focus in informatics.

HONORS AND AWARDS

- Consult Resident of the Year, General Surgery, Stanford Hospital (June 2024)
- First Place Poster: Basic Science, Duke Surgery Research Day (June 2021)
- Presidential Student Mentor Grant, American Society for Transplant Surgeons (ASTS) (2020)
- Randall R. Bollinger Surgical Scholarship, Duke University School of Medicine (2020)
- Effat Charitable Fund Scholarship, Duke University School of Medicine (2018)
- Alexander Skavenski Award for Behavioral Neuroscience, Northeastern University (2017)
- Husky Innovation Award, Northeastern University (2017)

Publications

PUBLICATIONS

- **Hot and Cold: Malignant Hyperthermia Without Fever in a Burn Patient.** *Journal of burn care & research : official publication of the American Burn Association*
Nobuhara, C. K., Yesantharao, P., Tai, J., Gupta, D., Ahlbrand, S., Sheckter, C.
2026
- **Enhancing Reality in the Multidisciplinary World.** *JAMA surgery*
Nobuhara, C. K., Forrester, J. D., Hawn, M. T.
2026
- **The Future of Surgical Decision-Making in Critical Care** *CURRENT EMERGENCY AND HOSPITAL MEDICINE REPORTS*
Fowler, M. J., Lee, A. H., Nobuhara, C. K., Nassar, A. K., Hindin, D. I., Hameed, S.
2026; 14 (1)
- **Ghost in the Machine: Leveraging artificial intelligence in the trauma bay.** *Trauma surgery & acute care open*
Burke, E. G., Nobuhara, C., Lee, A. H., Villarreal, J. A., Fitzgerald, C. A., Dumas, R. P.
2026; 11 (Suppl 1): e002259

- **Chlorhexidine Gluconate vs. Povidone-Iodine for Surgical Site Infection Prevention: A Systematic Review and Meta-Analysis Stratified by Surgery Type, Wound Classification, Antiseptic Formulation, and Country Income, with Meta-Regression.** *The Journal of hospital infection*
Benhammou, M., Elraggal, D., Saleh, S., Nobuhara, C. K., van Ramshorst, G. H., Mimos, O., Nounou, M. V., Shawesh, Q., Tuuli, M. G., Wexner, S. D., Catena, F., Forrester, J. D., Elhadi, et al
2026
- **The Surgical Residency of Tomorrow: A Case for Authenticity.** *Journal of the American College of Surgeons*
Klaris, G. E., Branch, R., Wang, L., Nobuhara, C. K., Spain, D. A.
2025
- **Surgical stabilization of flail sternum and bilateral chest wall injury in an octogenarian after horse trampling injury.** *Trauma surgery & acute care open*
Tai, J. W., Ko, B., Adams, M. E., Nobuhara, C. K., Knight, A. W., Forrester, J. D.
2025; 10 (4): e001999
- **The Role of Sleep Apnea in Postoperative Neurocognitive Disorders Among Older Noncardiac Surgery Patients: A Prospective Cohort Study.** *Anesthesia and analgesia*
Devinney, M. J., Spector, A. R., Wright, M. C., Thomas, J., Avasarala, P., Moretti, E. W., Dominguez, J. E., Smith, P. J., Whitson, H. E., Veasey, S. C., Mathew, J. P., Berger, M.
2025; 140 (1): 99-109
- **Resident-Applicant Buddy Program Increases Applicant Interest and Program Transparency.** *Journal of surgical education*
Shearer, J., Ngongoni, R. F., Yelorda, K., Nobuhara, C., Lin, D. T., Gahagan, J., Dua, M., Spain, D. A., Liebert, C. A.
2024; 81 (11): 1792-1797
- **Initial Multivisceral Resection for Retroperitoneal Liposarcoma Does Not Predict Improved Outcomes After Recurrence**
Sun, B. J., Yue, T. M., Nobuhara, C. K., Castro, S., Agolia, J. P., Lee, B.
SPRINGER.2024: S42
- **Regional vs General Anesthesia and Incidence of Postoperative Delirium in Older Patients Undergoing Hip Fracture Surgery** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Nobuhara, C., Devinney, M., Berger, M.
2022; 327 (17): 1707-+
- **Postoperative changes in cognition and cerebrospinal fluid neurodegenerative disease biomarkers** *ANNALS OF CLINICAL AND TRANSLATIONAL NEUROLOGY*
Berger, M., Browndyke, J. N., Wright, M., Nobuhara, C., Reese, M., Acker, L., Bullock, W., Colin, B. J., Devinney, M. J., Moretti, E. W., Moul, J. W., Ohlendorf, B., Laskowitz, et al
2022; 9 (2): 155-170
- **A Historical Cohort in Kidney Transplantation: 55-Year Follow-Up of 72 HLA-Identical, Donor-Recipient Pairs.** *Journal of clinical medicine*
Shaw, B. I., Villani, V., Kesseli, S. J., Nobuhara, C., Samoylova, M. L., Moris, D., Collins, B. H., McElroy, L. M., Poh, M., Knechtle, S. J., Barbas, A. S., Seigler, H. F.
2021; 10 (23)
- **HLA Loci and Recurrence of Focal Segmental Glomerulosclerosis in Pediatric Kidney Transplantation.** *Transplantation direct*
Shaw, B. I., Ochoa, A., Chan, C., Nobuhara, C., Gbadegesin, R., Jackson, A. M., Chambers, E. T.
2021; 7 (10): e748
- **Immune Thrombocytopenia Associated with Hepatitis B Virus and Autoimmune Hepatitis and Recovery of Platelet Count following Liver Transplantation.** *Case reports in transplantation*
Nobuhara, C., Cardona, D. M., Arcasoy, M. O., Berg, C. L., Barbas, A. S.
2021; 2021: 8484106
- **Cellular Therapies in Solid Organ Allotransplantation: Promise and Pitfalls.** *Frontiers in immunology*
Shaw, B. I., Ord, J. R., Nobuhara, C., Luo, X.
2021; 12: 714723
- **Plasma and cerebrospinal fluid inflammation and the blood-brain barrier in older surgical patients: the Role of Inflammation after Surgery for Elders (RISE) study.** *Journal of neuroinflammation*

- Vasunilashorn, S. M., Ngo, L. H., Dillon, S. T., Fong, T. G., Carlyle, B. C., Kivisäkk, P., Trombetta, B. A., Vlassakov, K. V., Kunze, L. J., Arnold, S. E., Xie, Z., Inouye, S. K., Libermann, et al
2021; 18 (1): 103
- **Risk of Spinal Hematoma After Lumbar Puncture** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Nobuhara, C., Berger, M.
2021; 325 (8): 787+
 - **Machine Learning to Develop and Internally Validate a Predictive Model for Post-operative Delirium in a Prospective, Observational Clinical Cohort Study of Older Surgical Patients.** *Journal of general internal medicine*
Racine, A. M., Tommet, D., D'Aquila, M. L., Fong, T. G., Gou, Y., Tabloski, P. A., Metzger, E. D., Hshieh, T. T., Schmitt, E. M., Vasunilashorn, S. M., Kunze, L., Vlassakov, K., Abdeen, et al
2021; 36 (2): 265-273
 - **Autoantibodies against the prion protein in individuals with PRNP mutations.** *Neurology*
Frontzek, K., Carta, M., Losa, M., Epskamp, M., Meisl, G., Anane, A., Brandel, J. P., Camenisch, U., Castilla, J., Haik, S., Knowles, T., Lindner, E., Lutterotti, et al
2020; 95 (14): e2028-e2037
 - **Cerebrospinal fluid and plasma biomarkers in individuals at risk for genetic prion disease.** *BMC medicine*
Vallabh, S. M., Minikel, E. V., Williams, V. J., Carlyle, B. C., McManus, A. J., Wennick, C. D., Bolling, A., Trombetta, B. A., Urick, D., Nobuhara, C. K., Gerber, J., Duddy, H., Lachmann, et al
2020; 18 (1): 140
 - **A protocol to reduce self-reported pain scores and adverse events following lumbar punctures in older adults** *JOURNAL OF NEUROLOGY*
Nobuhara, C. K., Bullock, W., Bunning, T., Colin, B., Cooter, M., Devinney, M. J., Ferrandino, M. N., Gadsden, J., Garrigues, G., Habib, A. S., Moretti, E., Moul, J., Ohlendorf, et al
2020; 267 (7): 2002-2006
 - **The Role of Inflammation after Surgery for Elders (RISE) study: Study design, procedures, and cohort profile.** *Alzheimer's & dementia (Amsterdam, Netherlands)*
Hshieh, T. T., Vasunilashorn, S. M., D'Aquila, M. L., Arnold, S. E., Dickerson, B. C., Fong, T. G., Jones, R. N., Marcantonio, E. R., Schmitt, E. M., Xu, G., Gou, Y., Chen, F., Kunze, et al
2019; 11: 752-762
 - **Prion protein quantification in human cerebrospinal fluid as a tool for prion disease drug development.** *Proceedings of the National Academy of Sciences of the United States of America*
Vallabh, S. M., Nobuhara, C. K., Llorens, F., Zerr, I., Parchi, P., Capellari, S., Kuhn, E., Klickstein, J., Safar, J. G., Nery, F. C., Swoboda, K. J., Geschwind, M. D., Zetterberg, et al
2019; 116 (16): 7793-7798
 - **Synaptic Tau Seeding Precedes Tau Pathology in Human Alzheimer's Disease Brain.** *Frontiers in neuroscience*
DeVos, S. L., Corjuc, B. T., Oakley, D. H., Nobuhara, C. K., Bannon, R. N., Chase, A., Commins, C., Gonzalez, J. A., Dooley, P. M., Frosch, M. P., Hyman, B. T.
2018; 12: 267
 - **Biomarkers in Alzheimer's, Frontotemporal, Lewy Body, and Vascular Dementias.** *Focus (American Psychiatric Publishing)*
Koenig, A. M., Nobuhara, C. K., Williams, V. J., Arnold, S. E.
2018; 16 (2): 164-172
 - **Tau Antibody Targeting Pathological Species Blocks Neuronal Uptake and Interneuron Propagation of Tau in Vitro.** *The American journal of pathology*
Nobuhara, C. K., DeVos, S. L., Commins, C., Wegmann, S., Moore, B. D., Roe, A. D., Costantino, I., Frosch, M. P., Pitstick, R., Carlson, G. A., Hock, C., Nitsch, R. M., Montrasio, et al
2017; 187 (6): 1399-1412
 - **Characterization of TauC3 antibody and demonstration of its potential to block tau propagation.** *PLoS one*
Nicholls, S. B., DeVos, S. L., Commins, C., Nobuhara, C., Bennett, R. E., Corjuc, D. L., Maury, E., Eftekhazadeh, B., Akingbade, O., Fan, Z., Roe, A. D., Takeda, S., Wegmann, et al
2017; 12 (5): e0177914

- **Seed-competent high-molecular-weight tau species accumulates in the cerebrospinal fluid of Alzheimer's disease mouse model and human patients.** *Annals of neurology*
Takeda, S., Commins, C., DeVos, S. L., Nobuhara, C. K., Wegmann, S., Roe, A. D., Costantino, I., Fan, Z., Nicholls, S. B., Sherman, A. E., Trisini Lipsanopoulos, A. T., Scherzer, C. R., Carlson, et al
2016; 80 (3): 355-67
- **Neuronal uptake and propagation of a rare phosphorylated high-molecular-weight tau derived from Alzheimer's disease brain.** *Nature communications*
Takeda, S., Wegmann, S., Cho, H., DeVos, S. L., Commins, C., Roe, A. D., Nicholls, S. B., Carlson, G. A., Pitstick, R., Nobuhara, C. K., Costantino, I., Frosch, M. P., Müller, et al
2015; 6: 8490