

Nathan Sean Makarewicz

- MD Student with Scholarly Concentration in Biomedical Ethics & Medical Humanities / Surgery, expected graduation Spring 2025
- Masters Student in Epidemiology and Clinical Research, admitted Autumn 2023

Publications

PUBLICATIONS

- **Diagnosis and Management of Orbital Compartment Syndrome in Burn Patients - a Systematic Review.** *Journal of burn care & research : official publication of the American Burn Association*
Makarewicz, N., Perrault, D., Cevallos, P., Shekter, C.
2024
- **The impact of exercise on gene regulation in association with complex trait genetics.** *Nature communications*
Vetr, N. G., Gay, N. R., MoTrPAC Study Group, Montgomery, S. B., Adkins, J. N., Albertson, B. G., Amar, D., Amper, M. A., Armenteros, J. J., Ashley, E., Avila-Pacheco, J., Bae, D., Balci, A. T., et al
2024; 15 (1): 3346
- **Commentary on En Face to the World.** *Academic medicine : journal of the Association of American Medical Colleges*
Makarewicz, N.
2024; 99 (5): 507
- **Temporal dynamics of the multi-omic response to endurance exercise training.** *Nature*
2024; 629 (8010): 174-183
- **Virtual reality facilitated exercise improves pain perception: A crossover study.** *Journal of clinical anesthesia*
Rodriguez, S. T., Makarewicz, N., Wang, E. Y., Zuniga-Hernandez, M., Titzler, J., Jackson, C., Suen, M. Y., Rosales, O., Caruso, T. J.
2023; 91: 111257
- **Artist's Statement: Zoom Medical School.** *Academic medicine : journal of the Association of American Medical Colleges*
Makarewicz, N.
2023; 98 (6): 679
- **Comparing the Outcomes and Complication Rates of Biologic vs Synthetic Meshes in Implant-Based Breast Reconstruction: A Systematic Review.** *Annals of plastic surgery*
Makarewicz, N., Perrault, D., Sharma, A., Shaheen, M., Kim, J., Calderon, C., Sweeney, B., Nazerli, R.
2023; 90 (5): 516-527
- **Use of Local Antibiotic Delivery Systems in Tissue Expander and Implant-Based Breast Reconstruction: A Systematic Review of the Literature.** *Eplasty*
Makarewicz, N., Lipman, K., Johnstone, T., Shaheen, M., Shah, J. K., Nazerli, R.
2023; 23: e24
- **En Face to the World Commentary on En Face to the World.** *Academic medicine : journal of the Association of American Medical Colleges*
Makarewicz, N.
2023
- **Foot Burns and Diabetes: A Systematic Review of Current Clinical Studies and Proposal of a New Treatment Algorithm.** *Journal of burn care & research : official publication of the American Burn Association*
Sharma, A., Perrault, D., Makarewicz, N. S., Pham, T., Shekter, C., Gurtner, G.
2023
- **Use of Antibiotic-impregnated Polymethylmethacrylate (PMMA) Plates for Prevention of Periprosthetic Infection in Breast Reconstruction** *PLASTIC AND RECONSTRUCTIVE SURGERY-GLOBAL OPEN*

- Johnstone, T., Lipman, K., Makarewicz, N., Shah, J., Turner, E., Posternak, V., Chang, D., Thornton, B., Nazerali, R.
2023; 11 (1)
- **Use of Antibiotic-impregnated Polymethylmethacrylate (PMMA) Plates for Prevention of Periprosthetic Infection in Breast Reconstruction.** *Plastic and reconstructive surgery. Global open*
Johnstone, T., Lipman, K., Makarewicz, N., Shah, J., Turner, E., Posternak, V., Chang, D., Thornton, B., Nazerali, R.
2023; 11 (1): e4764
 - **The Impact of Oncoplastic Reduction on Initiation of Adjuvant Radiation and Need for Reexcision: A Database Evaluation.** *Annals of plastic surgery*
Shah, J. K., Lipman, K., Pedreira, R., Makarewicz, N., Nazerali, R.
2022; 89 (6): e11-e17
 - **Maternal Exercise-Induced SOD3 Reverses the Deleterious Effects of Maternal High-Fat Diet on Offspring Metabolism Through Stabilization of H3K4me3 and Protection Against WDR82 Carbonylation** *DIABETES*
Kusuyama, J., Makarewicz, N. S., Albertson, B. G., Alves-Wagner, A., Conlin, R. H., Prince, N. B., Alves, C. R., Ramachandran, K., Kozuka, C., Xiudong, Y., Xia, Y., Hirshman, M. F., Hatta, et al
2022; 71 (6): 1170-1181
 - **Grandmaternal exercise improves metabolic health of second-generation offspring** *MOLECULAR METABOLISM*
Alves-Wagner, A. B., Kusuyama, J., Nigro, P., Ramachandran, K., Makarewicz, N., Hirshman, M. F., Goodyear, L. J.
2022; 60: 101490
 - **Reinforced Biologic Mesh Reduces Postoperative Complications Compared to Biologic Mesh after Ventral Hernia Repair.** *Plastic and reconstructive surgery. Global open*
Sivaraj, D., Henn, D., Fischer, K. S., Kim, T. S., Black, C. K., Lin, J. Q., Barrera, J. A., Leeolou, M. C., Makarewicz, N. S., Chen, K., Perrault, D. P., Gurtner, G. C., Lee, et al
2022; 10 (2): e4083
 - **Exercise Training Promotes Sex-Specific Adaptations in Mouse Inguinal White Adipose Tissue** *DIABETES*
Nigro, P., Middelbeek, R. W., Alves, C. R., Rovira-Llopis, S., Ramachandran, K., Rowland, L. A., Moller, A. B., Takahashi, H., Alves-Wagner, A. B., Vamvini, M., Makarewicz, N. S., Albertson, B. G., Hirshman, et al
2021; 70 (6): 1250-1264
 - **Placental superoxide dismutase 3 mediates benefits of maternal exercise on offspring health** *CELL METABOLISM*
Kusuyama, J., Alves-Wagner, A., Conlin, R. H., Makarewicz, N. S., Albertson, B. G., Prince, N. B., Kobayashi, S., Kozuka, C., Moller, M., Bjerre, M., Fuglsang, J., Miele, E., Middelbeek, et al
2021; 33 (5): 939+
 - **Effects of maternal and paternal exercise on offspring metabolism.** *Nature metabolism*
Kusuyama, J., Alves-Wagner, A. B., Makarewicz, N. S., Goodyear, L. J.
2020; 2 (9): 858-872
 - **Grand-Maternal Exercise Improves Glucose Tolerance in Second Generation Offspring**
Wagner, A. A., Kusuyama, J., Nigro, P., Makarewicz, N. S., Hirshman, M. F., Goodyear, L. J.
AMER DIABETES ASSOC.2020
 - **Mechanism for the Beneficial Effects of Maternal Exercise to Improve Offspring Metabolic Health**
Kusuyama, J., Wagner, A. B., Conlin, R. H., Makarewicz, N. S., Moller, M., Miele, E. M., Middelbeek, R., Jessen, N., Ovesen, P. G., Hirshman, M. F., Adamo, K. B., Grayck, E. N., Goodyear, et al
AMER DIABETES ASSOC.2020
 - **Low intensity pulsed ultrasound (LIPUS) maintains osteogenic potency by the increased expression and stability of Nanog through spleen tyrosine kinase (Syk) activation.** *Cellular signalling*
Kusuyama, J., Seong, C., Makarewicz, N. S., Ohnishi, T., Shima, K., Semba, I., Bandow, K., Matsuguchi, T.
2019; 62: 109345