Stanford

Aly Elezaby, MD PhD

Instructor, Medicine - Cardiovascular Medicine

Bio

ACADEMIC APPOINTMENTS

- Instructor, Medicine - Cardiovascular Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

PROFESSIONAL EDUCATION

- Board Certification, American Board of Internal Medicine , Advanced Heart Failure and Transplant Cardiology (2024)

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cardiovascular Medicine (Fellowship Program)
- Chemical and Systems Biology (Phd Program)

Publications

PUBLICATIONS

- **Immunosuppression Drugs Exhibit Differential Effects on Endothelial Cell Function.** *Journal of vascular research*
  Elezaby, A., Dexheimer, R., Wu, D., Chan, S. Y., Tacco, I. R., Chen, I. Y., Sayed, N., Sallam, K.
  2025: 1-13
- **Excessive mitochondrial fission and associated extracellular mitochondria mediate cardiac dysfunction in obesity cardiomyopathy.** *Life sciences*
  Li, S. J., Tetri, L. H., Vijayan, V., Elezaby, A., Chiang, C. H., Lopez, I., Ostberg, N. P., Cornell, T. T., Chen, C. Y., Haileselassie, B.
  2025: 123658
- **Immunosuppression Drugs Exhibit Differential Effects on Endothelial Cell Function.** *bioRxiv : the preprint server for biology*
  Elezaby, A., Dexheimer, R., Wu, D., Chan, S. Y., Chen, I. Y., Sayed, N., Sallam, K.
  2024
- **Cardiac troponin I directly binds and inhibits mitochondrial ATP synthase with a noncanonical role in the post-ischemic heart.** *Nature cardiovascular research*
  Elezaby, A., Lin, A. J., Vijayan, V., Pokhrel, S., Kraemer, B. R., Bechara, L. R., Larus, I., Sun, J., Baena, V., Syed, Z. A., Murphy, E., Glancy, B., Ostberg, et al
  2024; 3 (8): 987-1002
- **Extracellular release of mitochondria induced by pre-hematopoietic stem cell transplant conditioning exacerbates GVHD.** *Blood advances*
  Vijayan, V., Yan, H., Lohmeyer, J. K., Prentiss, K. A., Patil, R. V., Barbarito, G., Lopez, I., Elezaby, A., Peterson, K., Baker, J., Ostberg, N. P., Bertaina, A., Negrin, et al
  2024

- **Extracellular Release of Damaged Mitochondria Induced By Cytotoxic Conditioning Exacerbates Graft-Versus-Host Disease**
  Vijayan, V., Yan, H., Lohmeyer, J., Prentiss, K., Patil, R., Barbarito, G., Lopez, I., Elezaby, A., Peterson, K., Baker, J., Ostberg, N., Bertaina, A., Negrin, et al
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- **Immunosuppression Drug Mediated Cardiovascular Effects**
  Dexheimer, R., Thomas, D., Gaddam, S., Elezaby, A., Chen, I. Y., Wang, K., Sayed, N., Sallam, K.
  LIPPINCOTT WILLIAMS & WILKINS.2023

- **Cardiac Troponin I Directly Binds Mitochondrial Proteins And Inhibits Mitochondrial Functions**
  Elezaby, A., Lin, A. J., Vijayan, V., Pokhrel, S., Bechara, L., Ostberg, N., Queliconi, B. B., Campos, J., Ferreira, J., Haileselassie, B., Mochly-Rosen, D.
  LIPPINCOTT WILLIAMS & WILKINS.2023

- **A Selective Inhibitor of Cardiac Troponin I Phosphorylation by Delta Protein Kinase C (deltaPKC) as a Treatment for Ischemia-Reperfusion Injury.** *Pharmaceuticals (Basel, Switzerland)*
  Qvit, N., Lin, A. J., Elezaby, A., Ostberg, N. P., Campos, J. C., Ferreira, J. C., Mochly-Rosen, D.
  2022; 15 (3)

- **Cardiovascular effects of immunosuppression agents.** *Frontiers in cardiovascular medicine*
  Elezaby, A., Dexheimer, R., Sallam, K.
  2022; 9: 981838

- **Iron Deficiency as a Potential Modulator of Subclinical Deficiencies in Cardiac Performance and Exercise Capacity.** *Journal of cardiac failure*
  Elezaby, A., Parikh, V. N., Nayor, M.
  2021; 27 (7): 822-824

- **ABCB10 deletion in cardiomyocytes leads to mitochondrial dysfunction and early death**
  Chambers, J., Elezaby, A., Croteau, D., Sverdlov, A., Liesa, M., Shirihai, O., Luptak, I., Pimentel, D., Siwik, D., Colucci, W.
  ELSEVIER SCIENCE INC.2018: S22

- **Mitochondrial Reactive Oxygen Species Mediate Cardiac Structural, Functional, and Mitochondrial Consequences of Diet-Induced Metabolic Heart Disease.** *Journal of the American Heart Association*
  Sverdlov, A. L., Elezaby, A. n., Qin, F. n., Behring, J. B., Luptak, I. n., Calamaras, T. D., Siwik, D. A., Miller, E. J., Liesa, M. n., Shirihai, O. S., Pimentel, D. R., Cohen, R. A., Bachschmid, et al
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- **Mitochondrial remodeling in mice with cardiomyocyte-specific lipid overload.** *Journal of molecular and cellular cardiology*
  Elezaby, A. n., Sverdlov, A. L., Tu, V. H., Soni, K. n., Luptak, I. n., Qin, F. n., Liesa, M. n., Shirihai, O. S., Rimer, J. n., Schaffer, J. E., Colucci, W. S., Miller, E. J.
  2015; 79: 275–83

- **Partial Liver Kinase B1 (LKB1) Deficiency Promotes Diastolic Dysfunction, De Novo Systolic Dysfunction, Apoptosis, and Mitochondrial Dysfunction With Dietary Metabolic Challenge.** *Journal of the American Heart Association*
  Miller, E. J., Calamaras, T. n., Elezaby, A. n., Sverdlov, A. n., Qin, F. n., Luptak, I. n., Wang, K. n., Sun, X. n., Vijay, A. n., Croteau, D. n., Bachschmid, M. n., Cohen, R. A., Walsh, et al
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- **High fat, high sucrose diet causes cardiac mitochondrial dysfunction due in part to oxidative post-translational modification of mitochondrial complex II.** *Journal of molecular and cellular cardiology*
  Sverdlov, A. L., Elezaby, A. n., Behring, J. B., Bachschmid, M. M., Luptak, I. n., Tu, V. H., Siwik, D. A., Miller, E. J., Liesa, M. n., Shirihai, O. S., Pimentel, D. R., Cohen, R. A., Colucci, et al
  2015; 78: 165–73

- **Overexpression of Catalase Diminishes Oxidative Cysteine Modifications of Cardiac Proteins.** *PloS one*
  Yao, C. n., Behring, J. B., Shao, D. n., Sverdlov, A. L., Whelan, S. A., Elezaby, A. n., Yin, X. n., Siwik, D. A., Seta, F. n., Costello, C. E., Cohen, R. A., Matsui, R. n., Colucci, et al
  2015; 10 (12): e0144025

- **Impairment of the PPARa/PGC1a Axis Compromises Mitochondrial Biogenesis and Function in Hearts With Cardiomyocyte-Specific Fatty Acid Transport Protein 1 (FATP1) Overexpression**

Elezaby, A., Sverdlov, A., Tu, V., Soni, K., Liesa, M., Liesa, M., Shirihai, O., Colucci, W. S., Miller, E. J.
LIPPINCOTT WILLIAMS & WILKINS.2013

- **Cardiac-Specific Fatty Acid Transport Protein 1 (FATP1) Overexpression Causes Decreased Mitochondrial Respiration, Increased Oxidative Stress and Activation of AMPK**
  Elezaby, A., Miller, E. J., Qi, F., Liesa, M., Shirihai, O. S., Colucci, W. S.
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- **Fusion of nearby inverted repeats by a replication-based mechanism leads to formation of dicentric and acentric chromosomes that cause genome instability in budding yeast.** *Genes & development*
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