

Sanna Elizabeth Herwald

Adjunct Clinical Instructor, Radiology

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BIO

Sanna Herwald received her M.D. and Ph.D. degrees from Tufts University. Her Ph.D. research in the field of Microbiology focused on the opportunistic fungal pathogen *Candida albicans*. During her time in the M.D.-Ph.D. program she discovered her interest in Radiology, and the possibilities for visualizing the interaction between microorganisms and the human body.

PROFESSIONAL EDUCATION

- Internship, California Pacific Medical Center , Internal Medicine (2020)
- MD, Tufts University School of Medicine (2019)
- PhD, Tufts University, Department of Molecular Biology and Microbiology , Molecular Microbiology (2019)
- BA, Pomona College , Molecular Biology (2010)

Publications

PUBLICATIONS

- **Label-free monitoring of embolotherapy via catheter electrochemical impedance spectroscopy.** *Scientific reports*
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- **Design and implementation of a cost-effective, open-source, and programmable pulsatile flow system** *HARDWAREX*
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- **Health for All: A Report of the 2020 Association of American Medical Colleges Learn Serve Lead Meeting.** *Journal of the American College of Radiology : JACR*
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- **Computed Tomography-Guided Microwave Ablation of Cystic Renal Cell Carcinoma: Assessment of Technique and Complications.** *Journal of vascular and interventional radiology : JVIR*
Zhou, W., Herwald, S. E., Arellano, R. S.
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- **Inflammatory Pseudotumor Mimics Local Recurrence following a Microwave Ablation of Renal Cell Carcinoma.** *Journal of vascular and interventional radiology : JVIR*

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- **Impact of Body Mass Index on Perioperative Complications and Oncologic Outcomes in Patients Undergoing Thermal Ablation for Renal Cell Carcinoma.** *Journal of vascular and interventional radiology : JVIR*
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2020
- **Thermal Ablation of Renal Cell Carcinoma in Morbidly Obese Patients: Assessment of Technical Results, Procedural Safety, and Oncological Outcomes.** *AJR. American journal of roentgenology*
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2020
- **Radiofrequency Ablation, Cryoablation, and Microwave Ablation for T1a Renal Cell Carcinoma: A Comparative Evaluation of Therapeutic and Renal Function Outcomes** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
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2019; 30 (7): 1035–42
- **Risk Assessment of Chronic Kidney Disease following Microwave Ablation for Stage T1 Renal Cell Carcinoma** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Zhou, W., Herwald, S. E., Uppot, R. N., Arellano, R. S.
2018; 29 (12): 1685–91
- **Image-Guided Thermal Ablation for Non-resectable Recurrence of Renal Cell Cancer Following Nephrectomy: Clinical Experience with Eleven Patients** *CARDIOVASCULAR AND INTERVENTIONAL RADIOLOGY*
Zhou, W., Herwald, S. E., Uppot, R. N., Arellano, R. S.
2018; 41 (11): 1743–50
- **The two transmembrane regions of Candida albicans Dfi1 contribute to its biogenesis** *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS*
Herwald, S. E., Zucchi, P. C., Tan, S., Kumamoto, C. A.
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- **Anticipated Supply and Demand for Independent Interventional Radiology Residency Positions: A Survey of Department Chairs** *JOURNAL OF THE AMERICAN COLLEGE OF RADIOLOGY*
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- **Irreversible Electroporation for Treatment of Hepatocellular Carcinoma Adjacent to the Gallbladder** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*
Herwald, S. E., Chen, J. H., Arellano, R. S.
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- **The game theory of Candida albicans colonization dynamics reveals host status-responsive gene expression** *BMC SYSTEMS BIOLOGY*
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- **Candida albicans Niche Specialization: Features That Distinguish Biofilm Cells from Commensal Cells** *CURRENT FUNGAL INFECTION REPORTS*
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- **Structure and Substrate Specificity of the Pyrococcal Coenzyme A Disulfide Reductases/Polysulfide Reductases (CoADR/Psr): Implications for S-0-Based Respiration and a Sulfur-Dependent Antioxidant System in Pyrococcus** *BIOCHEMISTRY*
Herwald, S., Liu, A. Y., Zhu, B. E., Sea, K. W., Lopez, K. M., Sazinsky, M. H., Crane, E. J.
2013; 52 (16): 2764–73
- **Purification of high yields of catalytically active lysyl oxidase directly from Escherichia coli cell culture** *PROTEIN EXPRESSION AND PURIFICATION*
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