



# Advanced Radiology Services Foundation

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**ANNUAL REPORT 2022**

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Rapids, MI 49525. | 616-363-7339





## Dear Friends:

The ARS Foundation was initiated by the members of Advanced Radiology Services, PC as a public charity with a mission to use charitable giving to improve the field of radiology. Our method is to be a catalyst, looking for strategic ways for our giving to be multiplied by outside resources to strengthen other organizations.

This year has been a challenging year financially for the Foundation as it has been for the field of radiology in general. This annual report provides a moment to report our continuing efforts during these challenging times.

Radiopaedia.org: This year we completed support for a second grant for the excellent free open-access radiology website radiopaedia.org, led by Dr. Frank Gaillard, in order to further develop its technical capacity. The second step of this multi-year plan has been to develop the capacity to annotate the many submitted cases and to optimize the presentation of those cases on the website. To increase impact, this grant was provided in a match format, and radiopaedia.org successfully matched our grant with additional subscriptions.

Emory University Center for Ethics/Michigan State University: In 2022, the ARS Foundation continued to work with Dr. John Banja as the lead of the Emory University Center for Ethics. Along with partners at Michigan State University this project focuses on the non-interpretive aspects of artificial intelligence in radiology. Specifically, developing the ethical, economic, and legal aspects that have been only superficially discussed until now. This grant has already generated conference presentations, published articles, additional article submissions and a podcast with radiology luminaries. The grant was transformed successfully into a matching grant in 2021, with our funding matched by the Emory Department of Radiology. This year additional work on perceptual error was added to the project.

Harvey L. Neiman Health Policy Institute through the American College of Radiology (ACR) Foundation: Our goal in strongly supporting this institute has been to create a national "think tank" for radiology health policy research. We have been recognized by the ACR for our leadership work on this issue. After our first year of funding, we created a challenge match to strengthen the institute's fundraising that has continued through the present. This challenge has received a much greater fundraising response than expected. Our challenge grant has been matched first by the ACR Foundation and then matched again by individual and group donors. Equally important, our leadership work on this topic has helped catalyze a shift in the ACR Foundation's strategic direction toward supporting health policy research. We now have a position on their advisory board.

Radiological Society of North America (RSNA): Our continued support of the RSNA Research and Education Foundation was recognized as a visionary support group at the bronze level. The RSNA Foundation has achieved for each \$1 donated an average of a \$50 match from other funding sources such as the National Institutes of Health.

Michigan State University: This year we have watched the progress of our earlier grants in support of three research and education projects driven by Dr. Adam Alessio at MSU on artificial intelligence in radiology. In addition, we continue to watch the progress of a grant to Professor Saiprasad Ravishankar through MSU involving methods to use AI to speed up the acquisition of MRI images. His research has led to several publications. We endeavor to renew our support for these researchers during 2023.

In addition, we have once again provided a significant matching grant for medical student scholarships at Michigan State University in honor of Dr. Daniel Shumaker, a former radiologist at Advanced Radiology Services.

With the excellent work of Cheryl Buehler as our Treasurer, we will continue to build a successful investment plan to promote our Foundation's financial future. Consistent with the decline in the overall financial market, there was a net loss for 2022 of (\$134,376); however since the inception of the investment account in 2019, there remains an overall gain of \$99,456.

I am grateful that we have been given the opportunity to be good stewards of the Foundation's resources and in the faith of its donors. We look forward to strengthening the Foundation in 2023 with additional resources and expanded projects.

Warmly,

Dieter Hollstein, MD MPH, on behalf of the ARS Foundation Board

# About the Foundation

## MISSION

The ARS Foundation is dedicated to supporting organizations that improve the health of communities our members serve and investing in the future of radiology.

## CORE VALUES

The ARS Foundation is operated in a transparent fashion with a clear and consistent grant selection process in order to respect our supporters and maintain their confidence.

- Provide leadership for other radiology groups for their charitable activities.
- Make a positive difference.

2022

## 2022 BOARD OF DIRECTORS

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Thomas Archambeau, MD

Leonard Coiner, MD

Ryan Duhn, MD

Susan Ervine, MD

Brian Fedeson, MD

Rolf Dieter Hollstein, MD

Leena Mammen, MD

## 2022 OFFICERS

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Rolf Dieter Hollstein, MD - President

Thomas Archambeau, MD - Vice President

Cheryl Buehler - Treasurer

Laura Perkovic - Secretary

# 2022 PROJECTS



The ARS Foundation completed its grant to Radiopaedia.org in 2022.

Radiopaedia.org is one of the leading online radiology medical resources used across the globe. In 2022, they served 270 million pages to over 39 million individuals from every single country on earth. During the year, over 5,400 cases were contributed and 500 new articles were written with thousands of articles updated and improved bringing their total to public 51,000 cases and 16,200 articles as of January, 2023.

The comments below are part of the recent Radiopaedia.org newsletter viewed by over 39 million people:

*“Radiopaedia is constantly evolving and growing, and although behind-the-scenes work is constantly occurring, how much of that translates into user-facing changes is very variable.*

*Befitting springtime in Melbourne, we are entering a phase of substantial change with many of the core features of the site getting a much-needed revamp.*

*For those of you who contribute to the site, you may already have noticed a new smoother quicker text editor. We are also adding comprehensive disclosure tracking for all our contributors and editors.*

*But the biggest change is just around the corner; in fact, if you are clever you can already work out how to opt into the new feature: an all-new case viewer that supports annotations!*

*For now, annotations will remain an opt-in beta feature for logged-in users, but we plan to switch the whole site over to this new viewer in the coming weeks, once we polish a few rough edges.*

*This long-awaited feature was made possible by the support of our stalwart Feature Sponsor the Advanced Radiology Services Foundation who have been supporting us, and many other important educational and research activities, for many years.”*

# Radiopaedia.org

Since 2019 ARS Foundation has supported the development to four substantial features:

- Optimization of scrollable stacks to reduce the size (data)
- Accepting DICOM images for case upload
- Case Optimization tools (cropping/trimming/zoom)
- Case annotations (currently in close-beta release)

These four features encourage the redesign, both from a data point of view and from an aesthetic point of view, the in-line case viewer. As each feature was developed the support of ARS was acknowledged in the newsletter and on social media as well as having a unique positioning on the radiopaedia.org home page and in the header.

To encourage their users to support Radiopaedia.org, they created the ability to become a Radiopaedia Supporter. They offer three levels of support (silver, gold and radium).

The screenshot shows the Radiopaedia.org website home page. At the top, there is a navigation bar with 'ARTICLES', 'CASES', 'COURSES', and 'QUIZ'. Below this is a search bar and a 'Go ad-free' button. A prominent banner for 'RADIOPAEDIA 2023' is displayed, with the text 'Submit your rPoster abstract Get DOI citation & awards!' and a 'Deadline: 28 February 2023'. The main content area features a mission statement: 'Radiopaedia's mission is to create the best radiology reference the world has ever seen and to make it available for free, for ever, for all.' To the right, statistics show '51574 cases' and '16261 articles'. A 'Case of the Day' section highlights 'Langerhans cell histiocytosis - skull' with an X-ray image and a 'VIEW CASE' button. A 'Recent news' section shows a tweet from @Radiopaedia. At the bottom, there is a call to action to 'BECOME A SUPPORTER' and a 'Feature sponsor' section for the 'Advanced Radiology Services Foundation' with a 'VISIT ARSF' button. The footer contains 'Encyclopaedia', 'Patient Cases', and 'Radiopaedia.org'.





- **Emory University Center for Ethics / Michigan State University**

A third grant was provided to Emory University Center of Ethics in 2021 and we continued to watch the progress of this grant work in 2022. Dr. John Banja's research continues to focus on the underappreciated critical issues for radiologist learning about artificial intelligence and radiology. Dr. Banja's AI in radiology podcast index is growing. Podcasts are available via a subscription as of 2021. AI will soon be a clinical necessity and as it becomes the standard of care, Dr. Banja is working with multiple specialists to figure out how to entirely integrate it into clinical practice without causing frustration among radiologists. Multiple articles on this topic continue to be published, monthly AI journal club meetings in collaboration with MSU, and national public speaking engagements on AI in radiology continue to occur.

John Banja is on two AI research teams from Emory University that have each been recently notified that they have successfully competed for NIH funding to study the problem of fairness in AI sepsis prediction models. Both grants target the ethical dimensions of sepsis prediction, especially among minority groups. ARSF's support was cited in both applications. The grant funding will account for about 40% of Professor Banja's effort during 2022 and 2023.



In 2021 and 2022 - Dr. Banja and his team had three peer-reviewed articles published with one review.

- Banja, J., Rousselle, R., Duszak R., Safdar, N., Alessio, A.M. Sharing and selling images: Ethical and regulatory considerations for radiologists. Journal of the American College of Radiology. February 2021.  
<https://doi.org/10.1016/j.jacr.2020.08.003>
- Banja, J., Hollstein, R., Bruno, M. When Artificial Intelligence Models Surpass Physician Performance: Medical Malpractice Liability in an Era of Advanced Artificial Intelligence. Journal of the American College of Radiology July 2022.  
<https://doi.org/10.1016/j.jacr.2021.11.014>
- Tharp, K., Santavicca, S., Hughes, D., Kishore, D., Banja, J., Duszak, R. Characteristics of radiologists serving as medical malpractice expert witnesses for defense v. plaintiff. Journal of the American College of Radiology July 2022.  
<https://doi.org/10.1016/j.jacr.2022.04.005>
- Under review: Banja, J., Gichoya, J., Martinez-Martin, N., Waller, L., Clifford, G. Machine learning models and health disparities: ethical challenges and recommendations at their points of intersection. PLOS Digital Health.

# Emory University Center of Ethics

Nine podcasts were published in 2022

## AI, Radiology and Ethics: A Podcast Series

Emory University Center for Ethics

Health & Fitness

★★★★★ 5.0 • 1 Rating

[Listen on Apple Podcasts ↗](#)

OCT 31, 2022

### Discussing the Ethics of AI and Medical Error in Radiology

This interview is reproduced with the kind permission of Dr. Maxwell Cooper, host of the DaVinci Hour podcasts. Dr. Cooper interviews John Banja on various topics related to the ethical dimension of AI in radiology and on medical error in radiology. Please visit Dr. Cooper's DaVinci Hour podcasts at...

[▶ PLAY](#) 1 hr 4 min

OCT 26, 2022

### Patients, Their Data, and Their Privacy

This interview focuses on a variety of ethical vulnerabilities that big data in AI presents. Dr. Amy Kotsenas offers recommendations for better protecting data privacy in the age of AI. See her lead author article on "Rethinking patient consent in the era of artificial intelligence and big data" at...

[▶ PLAY](#) 32 min

OCT 25, 2022

### The Complexity of Concussion and Growing a Program in AI

Dr. Yvonne Lui from NYU discusses her radiology research on brain injuries and on growing a clinical and research program in artificial intelligence.

[▶ PLAY](#) 39 min

SEP 20, 2022

### The Business of AI in Radiology

Dr. Hari Trivedi discusses a range of issues on the economics of improving and importing AI technology along with his envisioning the near future of AI business models in radiology. See his article in the Journal of the American College of Radiology at <https://www.jacr.org/article/S1546-...>

[▶ PLAY](#) 47 min

MAY 16, 2022

### Health Disparities Revisited: Hopes and Challenges in Medicine and...

This podcast features Drs. Judy Gichoya and Leo Celi discussing how various biases in artificial intelligence models can affect radiology work. They also discuss certain strategies that might mitigate them.

[▶ PLAY](#) 40 min

MAY 12, 2022

### On Reducing Error in Clinical Care with Artificial Intelligence

In this podcast, Pelu Tran discusses how artificial intelligence can improve workflow and reduce various kinds of errors that occur in diagnosis and treatment planning.

[▶ PLAY](#) 37 min

APR 18, 2022

### AI in Health Disparities, Vendor-Hospital Agreements, and Refugee...

In this podcast, Dr. Muhammed Idris talks about his work in using AI for improving self-management health-related behaviors as well as using AI for resettling refugees.

[▶ PLAY](#) 37 min

APR 6, 2022

### PREVIEW of Episode 10: On Pigeons, Residency Training, and the...

A short snippet from Episode 10: On Pigeons, Residency Training, and the Development of Expertise for you to sample.

[▶ PLAY](#) 2 min





- **Harvey L. Neiman Health Policy Institute (HPI) through the American College of Radiology (ACR) Foundation**

The ARS Foundation has donated to the ACR Foundation to support the Harvey L. Neiman Health Policy Institute since 2015. Recently ARS Foundation funding contributed substantially to the acquisition of Medicaid data - 100% Medicaid claims for 2018-2019. This new resource will enable a wide range of policy research on this important population as well as the large number of children in the Medicaid and CHIPS programs.

In 2021 the HPI published 28 papers involving 121 unique authors and 45 partner institutions and conducted 5 research rounds presentations. The most popular paper was "Federal Out-of-Network Balance Billing Legislation: Context and Implications for Radiology Practices." The U.S. News & World Report recently featured an in-press publication from the HPI in JAMA Network Open evaluating the "Disparities in Use of Prostate MRI." The HPI also updated part of the Neiman Almanac with a new data series showing "How Often Patients Leave their Home State to Receive Care." Finally the HPI partnered with AIRP (formerly AFIP) to produce the AIRP-HPI Comparative Effectiveness Research Course to introduce radiology residents to key concepts in CER.

The HPI has a robust research agenda planned for 2023 that includes over 40 studies slated to address key health policy issues that could impact radiologists and patients. Economic policy issues remain high priority, including surprise billing and concerns over the calculation of qualified payment amounts, understanding the impact of price transparency mandates, and providing objective data to inform the debate over MARCA and scope of practice for non-physician radiology providers. There are also studies underway at our HEAL and IMPACT centers that address ACO radiologist participation and lung cancer screening opportunities.

*"Many thanks to you and your ARS Foundation partners for your continued support of the ACR Foundation and our Health Policy Research efforts through the Neiman Health Policy Institute. Your vision of ARSF as a "catalyst" to spur these critical projects has set the standard and inspired many others to step up as well.*

*As a result of this year's campaign to fund purchase of the Medicaid/CHIPs database, the HPI, under the leadership of Dr. Elizabeth Rula, will be able to explore a whole new segment of radiology care delivery and reimbursement that was previously unavailable."*

**-William T. Thorwarth Jr. MD, FACR, CEO American College of Radiology**



**HPI** HARVEY L. NEIMAN  
HEALTH POLICY INSTITUTE®  
Studies in Health Care and Economics

1891 Preston White Drive  
Reston, VA 20191  
neimanhpi.org

November 11, 2022

Advanced Radiology Services Foundation Board  
3264 North Evergreen Drive NE  
Grand Rapids, MI 49525

Dear Ms. Knox and ARS Foundation Board members,

I am incredibly grateful for your financial support of health policy research at the Neiman Institute, and I am pleased to have the opportunity to share our progress this year.

Your funding has contributed substantially to our acquisition of Medicaid data – 100% of U.S. Medicaid claims for 2018 and 2019. We have been approved and invoiced; we hope to have the data before the end of the year. This new resource will enable a wide range of policy research on this important population as well as the large number of children in the Medicaid and CHIP programs.

The newsletters that follow are quarterly communications that I send to the ACR Board of Chancellors and a large subset of ACR members to share our recent work and progress toward our strategic objectives. I also included slides that provide a very high-level summary of recent updates and accomplishments. We currently have 66 projects on our research agenda with focus on population health, lung cancer screening, breast imaging, stroke, health equity, radiology workforce/scope of practice, and surprise billing.

We had two impactful studies released this week. In JAMA Network Open, one [study](#) found that non-physician practitioners as emergency department providers were associated with 5.3% more imaging orders than if all ED providers were physicians. The other [study](#), in JACR, found that the costs of an Ischemic Stroke (IS) episode increased 4.9% from 2012 to 2019, and the increase was driven by increasing treatment costs versus imaging. Both studies have already received a significant amount of press.

We are in the process of celebrating our 10th anniversary and I hope you will visit our website to learn more: <https://www.neimanhpi.org/about/10-years-of-accomplishments/>

Warm regards,

Elizabeth Y. Rula, PhD, Executive Director, Harvey L. Neiman Health Policy Institute



## • Radiological Society of North America (RSNA) - Research & Education Foundation

For the past ten (10) years the ARS Foundation has donated to the RSNA R&E Foundation through the Visionaries in Practice (VIP) Giving Program. The RSNA R&E Foundation bolsters the future of radiology by providing early-career researchers and educators in the field with critical funding to develop ambitious projects.

The mission of the R&E Foundation is to invest in the future of radiology by developing investigators and supporting lifelong innovative research and education. With an average \$60 return on each \$1 invested, your donation provides grant funding that advances the radiologic sciences and shapes the future of our field.

The R&E Foundation works hard to ensure thoughtful stewardship with 94% of donations are used effectively funding grant programs. In 2021 the R&E Foundation provided over \$3 million in grant funding. Seven different grants and awards were offered.

Throughout the R&E's 35+ years:

- 1,500 investigators and educators received grants.
- 1,600 individual projects were funded
- \$70 million in cumulative grant funding



In 2020, the ARS Foundation provided donations to MSU for research lead by Adam Alessio, PhD and Saiprasad Ravishankar, PhD. Work continued in 2022 on all three research projects:

Project 1: Generation of educational learning modules related to AI in diagnostic medicine.

- The first round of educational modules were published in July 2021
- Several revisions have been performed.
- Modules available for download or easy use with Google CoLab environment.
- Work continued in 2022 with the remaining funds on the project.

Project 2: AI Competitions: Develop capacity to participate in grand challenges/AI competitions.

- In 2021, MSU participated in the RSNA Brain Tumor AI Challenge
- July 2022, RSNA announced RSNA Cervical Spine Fracture AI challenge.
- Summarized the challenge at ARS+MSU AI in healthcare journal Club and formed a team of MSU students and MSU Radiologists + Trainees to respond.

Project 3: Research deep learning methods for evaluation of change/longitudinal monitoring in radiology.

- In the summer of 2021, Spectrum IRB approval and business agreement were processed.
- June 2021 - present, work continues on process to anonymize, export, and transfer images from Spectrum to MSU (Dr. Morrison and Dr. Alessio)
- September 2021 - present, Henry Fessler, graduate student, working on machine learning models to express change in longitudinal feature space.
- Currently challenged with extracting spine studies from Spectrum PACS with assistance of Spectrum personnel.
- Work has started with the newly released I-SPY 2 trial data which includes 4 longitudinal breast MRI exams on each subject.

Funds for Dr. Ravishankar support the development of robust machine learning methods for accelerating MRI scan and image reconstruction times.

## **Results from ARS Foundation Funding**

**Project Title:** Towards Faster MRI with Machine Learning-Based Acquisition and Reconstruction Pipelines

**Goals:** As part of this project, PI Ravishankar and his research team have been developing highly novel and sophisticated machine learning and artificial intelligence (AI) schemes for a) improving image reconstruction quality in fast or accelerated MRI scans as well as b) to determine how to perform fast scans in a patient-adaptive manner. New methods continue to be developed for both anatomical scans and dynamic/cardiac MRI.

**Results:** Dr. Ravishankar along with his students and postdocs has generated several key publications from the project including two journal publications in the top imaging journals of the IEEE (IEEE Transactions on Medical Imaging and IEEE Transactions on Computational Imaging); four published or accepted conference papers and abstracts at the ISBI, ISMRM, and ICCV conferences/workshops; a journal paper currently under review; and three more conference papers under review or to be submitted shortly at the ICASSP and ICIP conferences. The papers received quite positive feedback and reception during reviewing and at the major conferences. All these works were successfully demonstrated and benchmarked on large public MRI data sets such as the Fast MRI data set (<https://fastmri.org/>). We also publicly released the software/code for the developed methods to benefit the broader research and medical community.

Dr. Ravishankar gave multiple invited talks on the works done including at the Third Deep Reconstruction Workshop in 2021 and the Third Workshop on Seeking Low-Dimensionality in Deep Neural Networks held in Abu Dhabi, UAE, during January 3-7, 2023. He was the lead PI on an NIH R21 proposal titled "Machine Learning-Based Adaptation of Data Sampling and Reconstruction for Efficient Dynamic MRI" that was awarded in September 2022, and a partially related NSF proposal on "Taming Deep Unsupervised Representation Learning in Imaging: Theory and Algorithms" was also funded. These have also led to new collaborations at Michigan State University and at the University of Michigan. Dr. Ravishankar will continue to build new research directions and forge collaborations for high impact in AI-driven medical imaging.



## Michigan State University - Daniel Shumaker, MD Memorial Endowed Scholarship

The endowment was established in 2018 to honor the life, leadership and friendship of a colleague, and his advocacy for the profession of radiology and the patients Dr. Shumaker served across the state of Michigan. The award recognizes the multifaceted complexity of the human experience, and acknowledges that substantial contributions live beyond a life prematurely ended by addiction and mental illness. The endowment seeks to encourage talented young physicians to innovate and impact society through engaged careers in radiology, behavioral medicine and/or neuroscience.

Through the generosity of our donors, scholarships have been provided to individuals with aspirations to address physician wellness through careers in radiology, behavioral medicine, neuroscience and/or organized medicine.

ARS Foundation,

It's difficult to know where to begin when considering the impact of the Daniel Shumaker, MD Memorial Endowed Scholarship. While I'm sure the same could be said about most if not all endowments, this particular one sheds light on a topic that has been hidden in the darkness for far too long.

The most immediate and arguably most important impact that comes to mind is the assurance that physician wellness is addressed in a proactive, supportive way. Through the generosity of our donors, scholarships have been provided to three individuals with aspirations to address physician wellness through careers in radiology, behavioral medicine, neuroscience and/or organized medicine. With the hope of furthering the reach of this mission, we applied for and received a grant through Kent County Medical Society Alliance Foundation in the fall of 2019. This particular grant funded our second annual scholarship recipient reception at which Dr. Richard B. Gunderman was the keynote speaker. During the event, the greater Grand Rapids and Kent County medical communities were engaged in conversation around the acknowledgement and prevention of physician burnout.

Albeit personal, I cannot discount the positive impact that this endowment and each of you have had on my daughters and I. Addiction and mental health can feel shameful, especially when they result in premature death. To know that Dan's legacy will live on by shining light on this arena and positively affecting future generations of physicians and their families fills us with hope.

Lastly, we are incredibly grateful for the generosity of the ARS Foundation contributions, ARS member contributions, and the unwavering dedication of Dr. Junewick and Dr. Coiner, whose friendship Dan cherished. We are humbled by your support.

With much gratitude,  
Debbie, Lindsay + Kate Shumaker

## From recipients of the Daniel Schumaker, MD Memorial Endowed Scholarship:

I was honored to have been in the inaugural recipient of the Shumaker Scholarship. I was about to take the Step 1 board exam, and heard from my administrator this scholarship was being instituted, and that there would be a celebration in the near future. I still remember where I was when received the phone call – standing in my Grand Rapids kitchen, making a modest meal of tofu and vegetables I could eat for the week.

My first emotion was relief. It was an honor, and a great help to receive financial assistance during this time, when money was tight, and my student loans were accruing rapidly (to reach a final, merciless \$356,500). However, the reprieve was most notably from the confines of my burgeoning belief, growing faster than my debt, that the medical community, especially attending physicians, did not care about physician, resident, and student wellness. The further I got into my training, the more it felt I was meant to be indoctrinated into a field that was provided for by capitalistic forces, the culture of which was built around the bottom line. No one seemed to want to talk about my concerns about how we could see the ethos of our classmates changing before our eyes. My peers would call me with their psychiatric symptoms, concerned with their waning interest in medicine, moral injury, and at times thoughts about ending their training or their lives.

So while I steamed my broccoli, I was delighted to feel a force behind me; a group of practicing physicians who cared that I cared about where this field is headed, and what we might be able to do to right the ship, with our individual contributions. I had been in a paddle boat, and the group behind this scholarship gave me some sails. I was much more inclined after this to be open about my quest to improve wellness, targeting students and residents for now, and working on systemic levels to do whatever I can.

Since then I have graduated from medical school as a member of the AOA and GHS, started residency at the University of Michigan in psychiatry, and just last week matched into our child and adolescent psychiatry fellowship program. While here, I made sure we have mentorship programs in place, that our big/little sib program continues on, have offered wellness and planning sessions for incoming classes, been part of our social committee to foster wellness, and most recently have been on our union's contract negotiations team to ensure we are adequately compensated, and that our health and wellbeing is protected. I am also on a quest to make sure the psychiatry residents in our program have access to confidential care, as the rest of the house officers and students do.

I now and then connect with Dr. Coiner and Mrs. Shumaker, which has been delightful. I once again get to remember that we are all in this together; helping prepare budding physicians – as well as seasoned ones – to contribute to a brand new way we can take care of patients: from a place of our own health, equanimity, and community.

Jamarie Geller, MD, MA 1/18/23

# MICHIGAN STATE UNIVERSITY

Dear Donors of the Daniel Shumaker, M.D., Memorial Endowed Scholarship,

I cannot thank you enough for your gift of the Daniel Shumaker, M.D Memorial Endowed Scholarship. It is an honor to be the 2019 recipient and I am grateful for your support. I completed my MD in 2020 and am currently pursuing a PhD in Science and Religion at Oxford. I'm training to become a palliative care physician, caring for those at the end of life and working at the interface of medicine and religion.

The Daniel Shumaker scholarship asks medical students to reflect on how their careers can help address the issue of physician wellness. It encourages future physicians to take pause and think about how they can prevent burnout in their careers and connect their work to the cause increasing physician well-being. The process of applying for the Daniel Shumaker scholarship helped bring this issue to the forefront of my mind. On the side of my PhD, I teach at the Oxford Medical School. I am on a small team designing and teaching a Medical Humanities curriculum to 5<sup>th</sup> year medical students. Our objective is to teach medical students how they can use resources in the humanities (art, storytelling, history, philosophy, religion etc.,) to reflect on their clinical experiences and improve the practice of medicine. The curriculum creates a space that students where students process difficult experiences and learn to draw on humanities to promote well-being. I'm grateful to the Daniel Shumaker Scholarship not only for the financial support but for inspiring my to intentionally connect my work to improving physician well-being.

The Daniel Shumaker scholarship is a blessing not only to the students who receive the scholarship but even to those who just fill out the application. Raising funds to make the Daniel Shumaker a full-ride scholarship would increase the impact of the scholarship because more medical students would apply for it and spend time critically reflecting on how they can connect their future work to promoting physician wellness in themselves and others.

Thank you once again for the blessing of this scholarship. It is a great encouragement to me along this journey of medical training. Thank you for this kind gift. I hope to use this education to bless others as you have blessed me.

Sincerely,  
Dr Ariel Dempsey



# Financial Position

FY 2022



# Advanced Radiology Services Foundation

Statement of Financial Position  
December 31, 2022

<b>Assets</b>	
<b>Current Assets</b>	
Cash: Operating	\$2,522
Cash: Investment	<u>882,001</u>
<b>TOTAL Current Assets</b>	<b>884,534</b>
<b>TOTAL Assets</b>	<b>\$884,534</b>
<b>Net Assets</b>	
Net Assets - Unrestricted	1,100,118
Change in Net Assets-Current Year	(215,584)
<b>Total Net Assets</b>	<b>\$884,534</b>

# Advanced Radiology Services Foundation

Statement of Financial Activities  
December 31, 2022

<b>Revenue</b>	
Interest Income	0
Investment Income	(134,376)
<b>Total Revenue</b>	<b>\$(134,376)</b>
<b>Expenses</b>	
Grants	69,200
Bank Services Charges	9,367
Annual Report Filing Fees	61
Professional Fees: Legal	0
Professional Fees: Accounting	2,580
<b>Total Expenses</b>	<b>\$81,208</b>
<b>NET INCOME/ (LOSS)</b>	<b>\$(215,584)</b>

# Advanced Radiology Services Foundation

## Board of Directors Contribution Report For the Year Ending December 31, 2022

Advanced Radiology Services Foundation  
Board of Directors Contribution Report  
For the Year Ending December 31, 2022  
As of 12/31/22

Charitable Organization - Unmatched	2019		2020		2021		2022	
	Approved	Spent	Approved	Spent	Approved	Spent	Approved	Spent
Health Policy Institute (American College of Radiology Foundation)	100,000	100,000	25,000	125,000	25,000	25,000	25,000	25,000
RSNA Research & Education Foundation	75,000	25,000	25,000	25,000	25,000	25,000	10,000	10,000
Radiopaedia.org	60,000	7,500		52,500	30,000	25,000	25,000	25,000
AI Ethics Project at Emory University	50,000	25,000		25,000	50,000	50,000		
Shumaker Scholarship Grant			11,050	11,050	11,050		9,200	9,200
MSU for multiple AI Projects (Adam)			120,000	90,000	150,000	30,000		
MSU Cardiac MRI (Norm Beuchamp)					25,000			
MSU (Sai) Grant fo Fast MRI AI			30,000	30,000				
Balance for Other Projects/build up cash balance					183,950			
<b>Total Approved</b>	<b>\$ 285,000</b>		<b>\$ 211,050</b>		<b>\$ 500,000</b>		<b>\$ 69,200</b>	
<b>Total Spent Year- to- Date</b>		<b>\$ 157,500</b>		<b>\$ 358,550</b>		<b>\$ 155,000</b>		<b>\$ 69,200</b>

## Future Direction:

In 2023, we plan to continue our support of our current project portfolio with expanded resources when possible. Many of these projects now contain a matching component to their grants and we will continue to use this mechanism.

We will endeavor to increase our fundraising with a new fundraising drive planned for February, 2023 to strengthen the Foundation into the future. Our investment strategy has been successful even in a financially difficult year and we plan to continue to use this strategy to best steward our resources.

As always, we will continue to scout for new projects.

As we have done in the past, we plan to maintain our strategies of:

- identifying underappreciated opportunities;
- developing matching grants; and
- creating alliances in order to use our funding capacity as a catalyst for improving the health of our communities and investing in the future of radiology.

Thank you for your continued support of Advanced Radiology Services Foundation and its mission.

