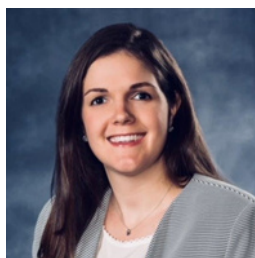




2021 ANNUAL REPORT

VCU HEALTH BOX 980710
RICHMOND, VA 23298
804 827 7297

CENTER FOR HUMAN-ANIMAL INTERACTION
WWW.CHAI.VCU.EDU
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2021 EXECUTIVE COMMITTEE

Left to right, top to bottom

Sharon Alexander, MPA
Operations Administrator, Department of Radiology



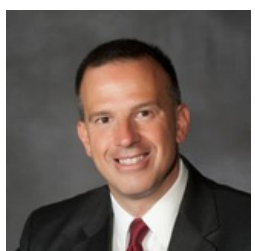
Carissa D. Etters
Assistant Director, Public Affairs, VCU Health

Kathleen O'Kane Kreutzer, M.Ed.
Director of Special Projects, Adjunct Assistant
Professor, Faculty Affairs, School of Medicine,
Virginia Commonwealth University



Reuban B. Rodriguez, Ed.D
Vice Provost, Virginia Commonwealth University

R. Macon Sizemore, MHA, PT
Director of Rehabilitation Services, VCU Health



Gary Southard, Jr., MBA
Senior Administrator, CHoR, VCU Health

Paul Wesolowski, MBA
Chief Operating Officer, VCU Health



Marjolein de Wit, M.D., M.S.
Associate Professor of Internal Medicine, VCU Health

Nancy Gee, Ph.D.
Center Director, Professor of Psychiatry, VCU Health

Dr. Randy Barker
Dr. Sandra Barker
Dr. Gonzalo Bearman
Dr. James Bjork
Dr. Pamela Dillon
Dr. Jeffrey Green
Dr. Lance Hampton
Dr. Susan Kornstein
Dr. Ashlee Loughan
Dr. Gretchen McCandless-Neigh
Dr. Shelby McDonald
Dr. Lisa Townsend

2021 RESEARCH AFFILIATES

From the **DIRECTOR'S DESK**

As you will see in the following pages, despite the various challenges posed by the ongoing pandemic, the Center for Human-Animal Interaction (CHAI) had a stellar year! We made considerable progress on all three aspects of our mission: clinical, educational, and research.

You can rest assured that we won't be resting on our laurels though - 2022 is already shaping up to be another exciting year for us!

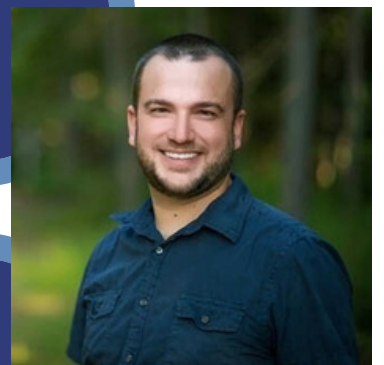


Who's **ON THE TEAM?**

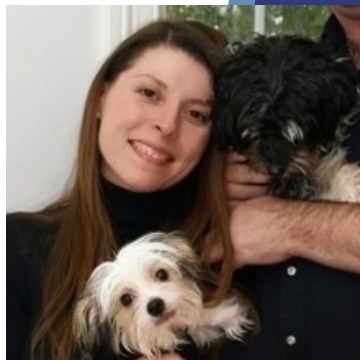
Jessica Sexton
Program Coordinator



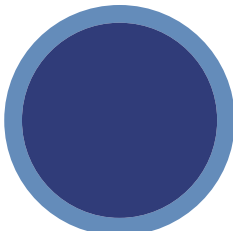
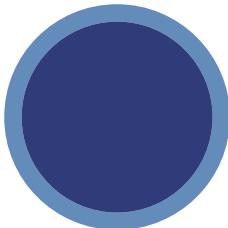
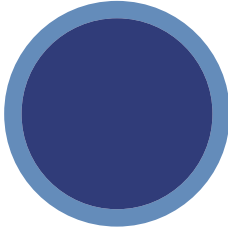
J.T. Hosack
Teams Coordinator



Dr. Lisa Townsend
Clinical and Research Associate



Dogs ON CALL



2021 saw the return of the Dogs on Call (DOC) program in the hospital and surrounding affiliate locations at VCU Health.

During our time away, the number of active teams was reduced, and our ability to onboard new teams was impacted dramatically by COVID-19 restrictions on volunteers in general.

Not surprisingly, we encountered challenges upon re-entering the hospital setting, which we met with an increased use of PPE and enhanced training of DOC teams.

Since then, we have raised our standards for onboarding and reactivating teams, and have included a new West Hospital pre-screening visit. We have also added a "Shadow Ops" team trained in the new protocols established in response to the COVID-19 pandemic. This group is responsible for ensuring that all new and reactivated teams are fully versed in what they need to do to keep everyone safe.

While we may not have re-entered the hospital until late March 2021, it seems that we nevertheless made a dramatic impact, as you can see by the impressive statistics on the next page.

Dogs on Call **BY THE NUMBERS**

During 2021, DOC made a tremendous impact in the hospital and in the lives of both patients and staff.

Although our return was delayed, when we were finally back, requests and visits came in almost immediately.

Over 2,275 official visits were made to locations in the hospital, which resulted in the human-animal interactions (HAI) with even more individuals.

Vulnerable populations such as older adults, pediatric patients, and patients in both the Secure Care Unit and inpatient psychiatry, who may not experience many visitors, received both requested and impromptu visits from DOC teams.

The year was a busy time for DOC, and despite a lower number of teams, we were able to meet over 75% of all requests. These requests are now sent directly to CHAI via phone, email, or our new pager to ensure the most efficient response possible.

We continue to look towards the future, reactivating existing teams while also onboarding brand new ones.

Finally, our improved database systems allow us to easily track DOC teams, documentation, and visit records internally.

**HOSPITAL
VISITS** *2276*

437 **REQUESTS
FOR VISITS**

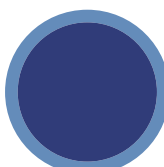
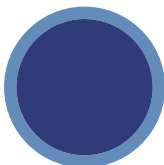
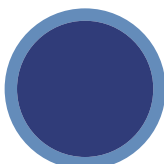
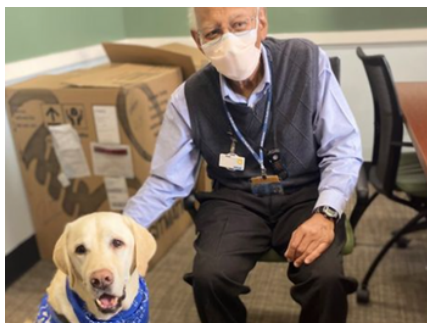
**REQUESTS
MET** *75.9%*

**TRAINING
VISITS** *53*

37 **REACTIVATION
SHADOWS**

Dogs on Call

ACTIVITIES AND EVENTS



Although our DOC teams only began returning to "work" in April 2021 after their pandemic break, they showed their support in the first part of the year by continuing the Virtual Visits and Operation Cookie deliveries they began in 2020.

As soon as DOC teams were admitted to their first reactivation location, West Hospital, the staff in the Cardiology unit jumped on the opportunity to relocate Dr. Walter Paulsen's 40th anniversary party there!

Once back in action full time, DOC teams met requests from organizations to attend special events throughout the VCU campus and hospital.

They met requests from students:

- Three visits to the School of Pharmacy to deliver "Tails for Self-Care"; and,
- Five "Destress" events at:
 - The Siegel Center for VCU Athletics;
 - Mcglothlin Medical Education Center;
 - The College of Engineering;
 - Cabell Library; and,
 - The Health Sciences Library.

And they met requests from other organizations:

- Mental Health Awareness Day for the Internal Medicine Department at the Egyptian Building;
- Advanced Practice Provider Day throughout the hospital; and,
- Arts in Healthcare Day in the Main Hospital.

Annual FUNDRAISERS

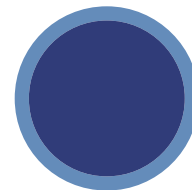
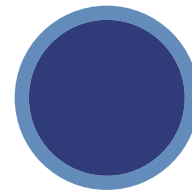
For many years, CHAI has generated financial support from two principal fundraisers: Dogs on Call Calendar Sales and Pups on the Plaza.

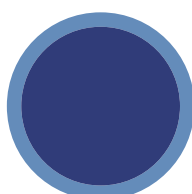
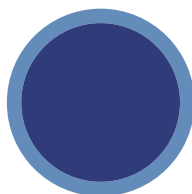
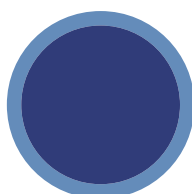
Our Dogs on Call 2022 Calendar Sales were a spectacular success! We began by securing several new traditional calendar sponsors this year, as well as creating a new category of "friend" sponsors.

Although we were apprehensive that pandemic precautions might restrict the enthusiasm of staff and patients to participate in our sales events in the lobby of Main Hospital, that proved not to be the case. As it happened, we sold out of calendars in just three sessions and had to cancel the last two!

The implementation of a swipe card, permitting us to accept credit card sales at these events for the first time, was a factor behind the increased sales. However, we have a suspicion that the VCU Health Staff were so happy to see our teams on site again they were eager to demonstrate their support with the purchase of a calendar. Online sales also increased significantly in 2021, especially as the word spread that we were running out of calendars!

Pups on the Plaza is an annual, hot-dogs-and-tee-shirts event held outside the McGlothlin Medical Education Center on 12th Street, and is an opportunity for DOC teams to mingle with staff and passers-by. Unfortunately, in both 2020 and 2021, pandemic restrictions prevented CHAI from hosting this event. We are hopeful that we will be back in action in April 2022.





As noted in the sections of this report covering DOC visits, events, education, and research, CHAI has a strong connection with VCU Health on many levels. During these especially stressful times, we displayed our commitment to supporting VCU, the staff especially, during the pandemic in the following additional ways as well.

In May, DOC participated in the virtual, 2021 Nurses Appreciation Week. Fifty-five participants enjoyed the opportunity to catch up with DOC teams, and the teams expressed their gratitude to the nurses for their commitment to getting our community through these difficult times.

Once a significant number of DOC teams had been reactivated, CHAI was able to conduct a detailed study of staff and patient encounters during 57 team visits in the hospital between June 2 and September 15. Our analysis showed that 57% of the DOC interactions were directly with staff; when staff were present during patient interactions, that rose to 72%. **This confirmed our understanding that our team visits are valued by the staff just as much as by patients - and under the stressful conditions of the past two years, it seems particularly important to support our Health Care Heroes.**

After establishing a reactivation process, we opened up Stony Point and Chesterfield Meadows to DOC teams, using versions of our customized pandemic training protocols. As other VCU locations become ready to come online, we will re-enter there as well.

CHAI also shepherded through and finalized an update to the official VCU "Animals in the Hospital" Policy that will ensure consistent practices for all locations.

Near the end of the year, we began developing plans to bring DOC to Community Memorial Hospital in South Hill, Virginia.

All CHAI team members contributed to providing educational opportunities regarding human-animal interactions in 2021.

CHAI team members made two in-person community presentations about HAI, DOC, and the Center's other programs.

- In March, Jessica Sexton presented to the Thomas Dale High School's Therapy Dog Club.
- In October, J.T. Hosack was guest speaker at the New Virginians Quarterly Meeting.

In 2021, CHAI readily responded to requests from VCU and VCU Health to share the Center's expertise about issues related to human-animal interactions.

- Dr. Gee made two class presentations on HAI to VCU's "UNIV 299 - What's the Big Idea?" program, one in March and one in September.
- Drs. Gee and Townsend presented on "Pets and Their Impact on Faculty Wellbeing" at a VCU School of Medicine Faculty Wellness Event in May.
- Dr. Gee conducted two seminars on the topic, "Emotional Support Animals: Recommendations for Mental Health Professionals," one to fourth year psychiatry (PSY) students.

CHAI's educational impact was felt outside the local area through a number of presentations and lectures in 2021.

- In February, Dr. Gee was a guest lecturer on "Best Practice Standards in AAI Risk" for the Oakland University School of Nursing, Animal-Assisted Intervention Certificate Program.
- In March, Dr. Gee presented a webinar for Singapore National Parks on the topic of Animal-Assisted Therapy.
- During Spring, 2021, Dr. Gee served on the Dissertation Supervisory Committee for a student at The University of Texas Medical Branch.

In 2021, CHAI, led by Dr. Townsend, developed an educational tool that can be used by other researchers in the VCU and VCU Health community.

- Researchers at CHAI collaborated with members of the VCU Institutional Review Board to develop a model human subjects ethics training for community-engaged researchers.
- Community-engaged researchers are members of the local, non-VCU community who participate in research.
- Although we developed this training specifically for Dogs on Call volunteers who are delivering hospital-based animal-assisted interaction (AAI), this training model will be made available to any members of the VCU or VCU Health research communities whose projects involve community-engaged researchers. It will also be featured on the CHAI website.

CHAI EDUCATION

Each year, CHAI provides educational opportunities to students from the VCU and VCU Health communities, and 2021 was no exception.

Eleven fourth year medical students (M4s) chose CHAI for four-week elective blocks. During their time at the Center, they engaged in a variety of activities designed to be mutually beneficial to them and CHAI, including:

- Learning the true impact of HAI firsthand while accompanying DOC teams on patient and staff visits;
- Performing literature searches of topics related to CHAI's research projects to increase understanding of reliable resources; and,
- Working on various research and community-based projects relevant to CHAI's mission.

Two fourth year psychiatry (PGY4) students also joined CHAI for more extended time periods. Their projects included:

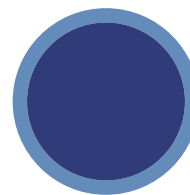
- Researching into the structure of other therapy dog programs in Virginia hospitals; and,
- Assessing the quality and subject matter of the research materials identified by the M4s, to prepare for a systematic review paper.

Aside from M4s and PGY4s, CHAI was home to other VCU students in 2021.

One undergraduate began her association with CHAI as part of VCU's Research Ready Program collecting and analyzing data about DOC team visits. She extended her time at the Center with an Independent Study course.

A graduate student spent a semester as a Social Work Intern at CHAI, completing preliminary work for a potential CHAI Pet Loss Support Program.

Since September, an Administrative Resident has been working with CHAI, developing ideas for future fundraising programs.



CHAI RESEARCH COMMUNICATIONS

CHAI's staff once again demonstrated their commitment to advancing the field of HAI through peer-reviewed publications, books, and conference presentations.



Journal Publications



Edited Books & Chapters



Conference Presentations

2021 JOURNAL PUBLICATIONS:

The team were particularly excited about two publications that were co-authored by members of the CHAI team and are closely tied to the work done at the Center, and in Dr. Gee's lead-author article on the biopsychosocial approach to understanding HAI, which is proving to be quite influential, having already being frequently cited.

Barker, S. & Gee, N. R. (2021) Canine-assisted interventions in hospitals: Best practices for maximizing human and canine safety. *Frontiers in Veterinary Science*, 8, 245.

<https://www.frontiersin.org/articles/10.3389/fvets.2021.615730/full>

Carr, D., Friedmann, E., **Gee, N.R.**, Gilchrist, C., Sachs-Ericsson, N., & Koodaly, L. (2021). Dog walking and the social impact of the COVID-19 pandemic on loneliness in older adults. *Animals*, 11(7), 1852.

<https://doi.org/10.3390/ani11071852>

Clements, H., Valentin, S., Jenkins, N., Rankin, J., **Gee, N. R.**, Snellgrove, D., & Sloman, K. A. (2021). Companion animal type and level of engagement matter: A mixed-methods study examining links between companion animal guardianship, loneliness and well-being during the COVID-19 pandemic. *Animals*, 11(8), 2349.

<https://doi.org/10.3390/ani11082349>

Friedmann, E., Krause-Parello, C. A., Payton, M., Blanchard, K., Storm, A., Barr, E., & **Gee, N. R.** (2021). A leash on life: An exploratory study on the effects of a shelter-dog walking program for veterans on dogs' stress. *Anthrozoös*, 1-14. <https://doi.org/10.1080/08927936.2021.1944559>

Gee, N. R., Rodriguez, K., Fine, A., & Trammel, J. (2021) Dogs supporting human health and wellbeing: A biopsychosocial approach. *Frontiers in Veterinary Science*, 8, 246.

<https://doi.org/10.3389/fvets.2021.630465>

Ozgunay, S., Murray, J. K., Rowe, E., **Gee, N. R.**, Bartholomeus, M., & Casey, R. (2021). Cognitive and composite behavioural welfare assessments of pet cats between the ages of 9-22 months, living in single and multi-cat households. *Animals*, 11(6), 1793. <https://doi.org/10.3390/ani11061793>

CHAI RESEARCH PUBLICATIONS

Pendry, P., Carr, A. M., Vandagriff, J. L., & **Gee, N. R.** (2021). Incorporating human-animal interaction into academic stress management programs: Effects on typical and at-risk college students' executive function. *AERA Open*, 7. <https://doi.org/10.1177/23328584211011612>

Rodriguez, K., Herzog, H., & **Gee, N. R.** (2021). Variability in human-animal interaction research. *Frontiers in Veterinary Science*, 7, 1207. <https://doi.org/10.3389/fvets.2020.619600>

Tomlinson, C. A., Matijczak, A., McDonald, S. & **Gee, N.R.** (2021). The role of human-animal interaction in child and adolescent health and development. *Behavioral Sciences*, 11(1), 1. <https://doi.org/10.1016/B978-0-12-818872-9.00003-0>

↙ Townsend, L., & Gee, N. R. (2021). Recognizing and mitigating canine stress during animal assisted interventions. *Veterinary Sciences*, 8(11), 254. <https://doi.org/10.3390/vetsci8110254>

2021 EDITED BOOKS AND CHAPTERS:

Drs. Gee and Townsend are currently working on a volume under contract with the American Psychiatric Association, *Companion Animals in the Treatment of Mental Illness*, which is on target to be published in 2022.

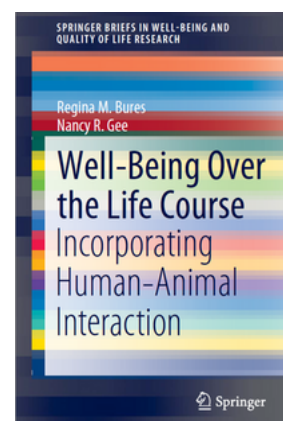


R. M. Bures & **N. R. Gee** (2021). *Well-being Over the Life Course: Incorporating Human-Animal Interaction*. Switzerland: Springer International Publishing.

Gee, N. R. (2021). Animal-Assisted Interactions Designed to Improve Human Wellbeing Across the Life Course. In R. M. Bures & **N. R. Gee**. *Well-Being over the Life Course: Incorporating Human-Animal Interaction*. Switzerland: Springer International Publishing.

Gee, N. R. (2021). Successful Aging and Human-Animal Interaction. In R. M. Bures & **N. R. Gee**. *Well-Being over the Life Course: Incorporating Human-Animal Interaction*. Switzerland: Springer International Publishing.

Gee, N. R. (2021). Conclusion. In R. M. Bures & **N. R. Gee**. *Well-Being over the Life Course: Incorporating Human-Animal Interaction*. Switzerland: Springer International Publishing.



CHAI CONFERENCE PRESENTATIONS

Although most conferences in 2021 were held virtually due to the pandemic, CHAI was represented at all major HAI events, as well as a variety of others. Dr. Gee's plenary session talk on The State of the Science at International Association of Human Animal Interaction Organizations (IAHAIO) was so well received that she has been invited to present it elsewhere in 2022.

Barker, S.B. (2021, January) *Efficacy of animal-assisted interventions (AAI) in hospitals*. University of Pennsylvania Veterinary School. Speaker.

30th Annual Conference: International Society for Anthrozoology, June 2021

- **Gee, N.R.** *University-Based Animal Assisted Interventions (AAIs): Theory and Research Towards Identifying Direct and Indirect Effects of Active Components on Stress-Related Outcomes*. Symposium Discussant.
- **Gee, N.R.** *Meet the Leaders*. Discussion by key leaders in the field about the future of Anthrozoology. Invited Panelist.
- Meints, K., Brelsford, V., Dimolareva, M., **Gee, N. R.** *Do Dog and Relaxation Interventions Affect Categorisation in Children With and Without Special Educational Needs? Evidence From a Longitudinal, Randomised Controlled Trial*. Symposium Presentation.
- Brelsford, V., Meints, K., **Gee, N.R.** *Effects of Animal-Assisted Interventions on Executive Functioning in School Children: A Longitudinal, Randomised Controlled Trial*. Symposium Presentation.
- Dimolareva, M., Brelsford, V., **Gee, N.R.**, Meints, K. *Effects of Dog-Assisted Interventions on Self-Esteem and Anxiety in Children With and Without Special Educational Needs: A Longitudinal, Randomised Controlled Trial*. Symposium Presentation.

Gee, N.R. (2021, July) *Therapy Dogs, Pets, and Healthy Aging - The Research Behind the Impact*. Webinar co-hosted by Grantmakers In Aging (GIA), American Federation for Aging Research (AFAR), and The Good Dog Foundation. Presenter.

Gee N.R. (2021, September) *The State of the Science - Where we are now and a vision for the future*. International Association of Human Animal Interaction Organizations 2021 Conference. Plenary Session Speaker.

Gee N.R. (2021, September) *Companion Animals in the Lives of Older Adults*. Society for Companion Animal Studies Annual Conference. Plenary Session Speaker and Panelist.

Barker, S.B. (2021, September) *Who let the dogs in? The challenge of canine-assisted interventions in hospitals and the need for veterinary involvement*. Elanco Human-Animal Bond Invited Keynote, Purdue Veterinary Conference. Speaker.

Gee, N.R. (2021, November) *Purdue University 2021 Center for Human-Animal Bond Conference*. Panelist/Moderator.

Gee, N.R. (2021, November) *Pet Ownership and Longitudinal Change in Physical Function*. Gerontological Society of America Annual Scientific Meeting. Presenter

Externally Funded **RESEARCH PROJECTS**

The COVID-19 pandemic has exacerbated social isolation, depression, and anxiety for many people for whom these conditions already represented a significant threat to health and well-being.

This situation prompted the research team at CHAI to ask whether a brief intervention with a therapy dog can reduce loneliness, depression, and anxiety, and improve health-related quality of life in three vulnerable hospitalized populations: older adults, those hospitalized for psychiatric illness, and children with medical conditions.

In 2021 we initiated three randomized controlled pilot trials that will compare the effects in these populations, including:

- Visits with a volunteer handler and their therapy dog;
- Visits with the handler alone; and,
- Treatment as usual.

The results of these studies will form the foundation for a larger scale clinical trial. We are grateful to Mars Petcare, the Waltham Pet Science Institute, the Human Animal Bond Institute, and Nestle Purina for their financial support of these projects.

MARS
Petcare

*A Better 
World For Pets*

WALTHAM
Petcare Science Institute

 **PURINA**[®]
Your Pet, Our Passion.[®]


habri
human animal bond
research institute

CHAI SOCIAL MEDIA REACH

UNIQUE USER INTERACTIONS



CHAI PUBLIC RELATIONS

CHAI received an impressive amount of media coverage this year, whether outlets were looking to the Center for expert opinions or wanting to highlight our programs.

Online Periodicals

The Straits Times (Singapore). [Learn how furry friends can help with therapy.](#) Interview with Chin Hui Shan, March 23, 2021.

University Business. [Could dog therapy be key to help failing students.](#) Chris Burt. May 17, 2021.

Women's Brain Health: Mind Over Matter. [Animal Attraction: Pets can be healthy for the body and soul.](#) May 2021.

Modern Dog Magazine. [Pandemic pups: Adopted dogs offer a furry support system.](#) June 2, 2021.

Telluride News. [Take your dog to work day.](#) June 23, 2021.

CHAI participated in an interview with a freelance reporter on the topic: [Importance of touch and the role of pets during the pandemic.](#)


Forbes. [Even more reasons to love your dog: Better thinking, reduced stress and happier work.](#) September 6, 2021.

Publicity Surrounding New CHAI Research

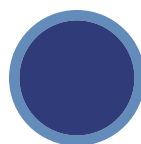
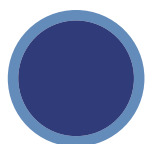
Mars Petcare Science Institute. LinkedIn and Website. [Can dog therapy ease loneliness in aging adults?](#)

Mars Petcare Science Institute. LinkedIn and Website. [How pets can benefit our mental health.](#)


[Virtual publicity launch event](#) for upcoming pets and loneliness research study. May 19, 2021.

 Satellite Media Tour to promote upcoming research study on AAT and loneliness. May 25, 2021. As of July 7, 2021, reached an audience of 22,513,542 via 352 television airings, 737 radio airings, and 13 internet airings. [Sample Television Interview.](#)

[Press Release on HABRI Study.](#) December 6, 2021.



Local Publicity (Including VCU & VCU Health)

 WTVR CBS Affiliate. Richmond, VA. March 31, 2021. [Therapy dogs prepare for their return to VCU Medical Center.](#) Video Interview with Tracy Sears. This story was well-received and even brought in a donation from a viewer who loved the story.

VCU News. [A look at how the VCU community is sharing the love and giving back in difficult times.](#) February 10, 2021.

VCU Marketing. [We're Back. We're Back!](#) August 23, 2021.

VCU Intranet Article. [Dogs on call helping our health care heroes paws to relax.](#) October 20, 2021

Top 10 Richmond Radio Stations K95, 96.5, 100.9, and 104.3. *Focus Richmond: Interview with Dr. Nancy Gee.* By Lori Kelly. Potential reach of over one million people.

On-Line Media

CHAI participated in a radio interview with Brigham Young University radio on the topic of pet loss.

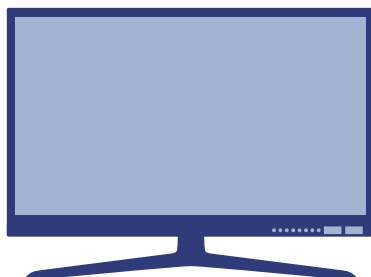
Radio Interview, 103.2 Dublin City FM. *Animals make us human: Investigating the therapeutic value of pets and animals in Irish society.*

Facebook Question and Answer Sessions regarding the book [Well Being Over the Life Course.](#) Sponsored by Books, Barks, and More. February 16-20, 2021.

Special Recognition Coverage

The VCU Department of Psychiatry noted that its "most read" journal article for the year was authored by CHAI Director Dr. Nancy Gee. [Homograph norms: An alternative approach to determining meaning dominance.](#)

Dr. Nancy Gee was also identified on Twitter as an expert in the area of HAI by virtue of being in the top 0.1% of published authors about HAI over the past 10 years.



Recognition

OUR SUPPORTERS

CHAI continues to receive financial support for our programs from a variety of sources.

Individuals contributed most often via the Close at Heart Program, which provides the opportunity to make donations to CHAI in the honor or memory of beloved pets and people.

In 2021, CHAI was also the beneficiary of three generous program support contributions, including one from The Tony Stewart Foundation, one from the Children's Hospital of Richmond Foundation, and one from the Community Memorial Hospital in South Hill.

Petsmart once again showered us with stuffed animals that we channel to various pediatric units at the Medical Center and CHoR

Whatever the source, these funds make it possible for the Center to continue to expand our programs in pursuit of our mission.



CHAI 20TH ANNIVERSARY

2021 was a momentous year for the Center for Human-Animal Interaction. After spending a year on the sidelines, our Dogs on Call teams were admitted back into the hospital, we added new staff members, and we embarked on new research programs.

In addition, 2021 marked the Center's 20th anniversary. From modest beginnings in 2001, CHAI has become an acknowledged leader in the areas of providing animal-assisted interactions, as well as research and education in the field of human-animal interactions.

- * *The Dogs on Call program is considered a model program for the integration of animals into a hospital environment*
- * *Our innovative research and peer-reviewed publications are recognized as making continuing contributions to the field of HAI*
- * *Our educational efforts locally, nationally, and internationally support the interdisciplinary growth of the field*

Please join us in celebrating our first 20 years, and in looking forward to the next 20!



20th
anniversary!

