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Bringing cancer care into the patient's home[1]

When Glen Peterson, D.N.P., started exploring ways to improve cancer care, his vision was audacious: to bring advanced, high-quality treatment out of the hospital and into patients' homes.

As an associate professor in the Division of Hematology at the CU Anschutz Medical Campus, Peterson saw the toll that traditional cancer care – with its endless clinic visits, hospital stays and exorbitant costs – was taking on patients. With the partnership of CU Innovations, he was able to form groundbreaking partnerships to test what's possible in reimagining patient care.

"The future is now," Peterson said. "We've shown that remote patient monitoring and in-home care aren't just feasible, they're transformative."

Collaborative approach to innovation

Peterson's recent feasibility studies on in-home care tackled complex treatments: autologous and allogeneic stem cell transplants and CAR-T cell therapies for aggressive blood cancers. The studies aimed to determine if these therapies – which involve risks and are traditionally only offered in hospital settings – could be managed effectively at home. Results were promising.

"We received support from <u>CU Innovations</u>[2] and a CU Anschutz research support team called <u>CReST</u>[3] to perform this study," Peterson said. "We also partnered with a private health care company called <u>Reimagine Care</u>[4] and a CU Innovations spinoff company called <u>BiointelliSense</u>[5] to conduct remote monitoring of the blood cancer patients enrolled in the study."

By using tools like <u>BiointelliSense[5]</u>'s Bio Sticker and Bio Button for remote monitoring, DispatchHealth, another private in-home health company, for in-home interventions, and a text-based communication platform, the studies demonstrated that high-risk cancer patients could safely receive care at home.

While the studies were small, involving 20 patients, they highlighted the potential for a seismic shift in cancer treatment.

"We're talking about reducing hospital stays, cutting costs and most importantly improving the quality of life for patients," Peterson said.

Profound benefits

For patients, the benefits of in-home care are profound. It can reduce the physical, emotional and financial burdens of repeated hospital visits. Patients can recover surrounded by their loved ones, maintain some semblance of normalcy and miss fewer days of work or school while undergoing treatment.

"The time patients spend in hospitals often comes at the expense of their families, their jobs and their lives," Peterson said. "By shifting care into the home, we're giving that time back to them."

From a health care perspective, the model addresses critical challenges, including hospital overcrowding, staffing shortages and rising costs.

"This approach is cheaper, safer and more efficient," Peterson said. "It's a win-win for everyone."

Powerful collaboration

The success of these studies underscores the importance of interdisciplinary collaboration. The CU Anschutz Medical Campus brought together academic experts, private companies and health care providers to tackle the logistical and technological challenges of in-home cancer care. Partners including Reimagine Care, BiointelliSense and DispatchHealth contributed cutting-edge tools and services, while CU Innovations ensured the project remained

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organized, efficient and focused.

"This wasn't just one person's effort," Peterson said. "It took a multidisciplinary team – from nurses and advanced practitioners to researchers, pharmacists and financial experts – to make this happen."

Pioneering a new model of care wasn't without hurdles. Patient compliance with wearable monitors, data integration with electronic health records, and lab processing logistics were just a few of the challenges the team faced. However, staying laser-focused on the patient, frequent communication and adaptive problem-solving kept the project on track.

"We learned a lot," Peterson said. "From improving patient education to streamlining technological processes, every challenge taught us how to do better."

The future of cancer care

Looking ahead, Peterson envisions a world where in-home care is the norm, not the exception. He's particularly optimistic about scaling the model to other types of cancer and even beyond oncology.

"The potential applications are limitless," he said. "With continued innovation, we can expand this approach to other complex medical conditions, ensuring patients get the best care without sacrificing their quality of life."

For aspiring entrepreneurs and researchers, Peterson offers a clear call to action: "Focus on the intersection of technology, patient care and cost efficiency. The opportunities are immense."

Peterson's work is more than a study in home health care innovations; it's a testament to what's possible when academic institutions embrace bold ideas. CU Innovations played a pivotal role in turning theory into practice, connecting partners, managing logistics and driving progress.

"Without CU Innovations, this wouldn't have been possible," Peterson said. "They brought the right people to the table, kept us organized and helped us see it through."

As cancer care continues to evolve, the work being done at the CU Anschutz Medical Campus and by partners like Reimagine Care offers a glimpse into a future where treatment truly revolves around patients' lives.

"At the end of the day, it's about doing what's right for the patient," Peterson said. "And that means meeting them where they are – at home."

Paid leave program marks one year with big impact [6]

Conference on World Affairs set for April 7-10[7]

CU Office of Government Relations providing updates during federal transition[8]

CU's Federal Relations team in the Office of Government Relations and the Office of University Counsel are working closely with the President and Chancellors to communicate and analyze the potential impacts of the current federal transition, recent executive actions, and their ongoing implementation on the university's mission and the people who work and learn on our campuses.

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On the <u>Government Relations website</u>[9], news and information is being updated regularly. Faculty and staff are encouraged to contact campus leadership with questions and to discuss impacts on projects, programs and departments.

In addition to updates on the <u>CU Government Relations news page</u>[10], the website houses links to campus resources, communications from CU Federal Relations, White House presidential actions and executive orders, and federal agency memos.

New information and guidance will be posted as it becomes available.

UCCS receives significant cybersecurity research designation, first in Colorado [11]

Auraria Library launches national search for new director [12]

Largest study ever done on cannabis and brain function finds impact on working memory[13]

Schwartz named associate dean for translational sciences[14]

Kaufman honored with prestigious PECASE award [15]

Walker's experience inspired satirical new book [16]

Gregory Walker, professor of music and entertainment studies at CU Denver's College of Arts and Media, recently released <u>"Curse of the Maestro and Other Stories,"</u>[17] a collection of tales from members of the fictional Stonehaven Symphony Orchestra. Walker draws on his experience as a concert violinist in imagining the stories. Here's a Q&A with the author:

What inspired you to write this collection of stories?

I used to write quite a bit, leading up to a novel, "Trigram Cluster Funk," which was published by Double Dragon in 2013. I got to see the Second Wind Theater premiere of a three-act play, "Chambers of the Heart," and won the Elizabeth M. Cruthers Prize in Playwriting. Man, was I full of energy. But instead of trying to imagine whole new worlds of fiction again this time around, for "Curse of the Maestro and Other Stories," I decided to just go with the classical music world I know. It is true that after years of serving as concertmaster of the Boulder Philharmonic, there were some axes to grind.

What is it about orchestra life that lends itself to fiction like that in your book?

So, you look at an orchestra on stage and see the formal, possibly stuffy, appearance of 50-odd tuxedo-clad automatons. But walk backstage with them during intermission and surprise: you got quirky, artistic personalities, interpersonal dramas, affairs of the heart and occasional substance abuse! There are those who say the basic principle of humor is that it's somehow unexpected.

Do you have a favorite character or story from the collection?

Well, instead of sensible stories per se, "Curse of the Maestro" is supposed to be a museum exhibit of diary entries, text messages, scented love letters, and what looks a little like Neo-Nazi music journalism. There's even a local newspaper interview with Symphony Ladies Guild President Greta Rimwald:

"Greta had grown up listening to the magnificent orchestras of her native Budapest, so that September her therapist introduced her to the Stonehaven Symphony. Sure enough, she found herself intrigued by the Americans, particularly the next generation of outstanding musician interns from local high schools.

"I always had the bekapcsol for these young horn players," Greta remembers. "There is something about the way they prance about on the stage, so free and wild. And you know, the Maestro was so hot. All the Guild Girls thought so."

In fact, ages of the sixteen Guild "Girls" ranged from their late-50s to mid-80s, many former mail-order brides from Soviet bloc countries that no longer exist. It was mentioned that if math serves, Greta herself must have been nearly seventy years old when Maestro Zoltan Vegh was forced to step down under a cloud of improprieties."

What kind of reactions to the book have you received?

Polite.

In New York, somebody at the Amsterdam News wrote, "the equally sad and hilarious tales bring the musicians and those who support them way down to earth – almost beneath it, actually." The website Literary Titan says, "Walker brings this chaotic world to life through an eclectic mix of journals, interviews, newspaper clippings and internet sources, crafting a fictional history that's as entertaining as it is outrageous."

Somebody on Amazon said, "I dare you to read it!"

Sheesh.

Would you like to write more fiction in the future?

Hah! A time-intensive proposition. I'm really grateful for the unique teaching/creative work balance possible at the College of Arts and Media. But sooner or later, I got to get back to class. Anybody seen where my students went?

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Study Reveals a Glass of Milk a Day Could Help Lower Women's Risk of Colorectal Cancer[19]

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