



## Introducing Our New Physician - Dr. Andrea George

Dr. George joined the Osteoporosis Research Center (ORC) staff in August 2018. Dr. Recker says “She has demonstrated great promise in furthering her research and mentoring skills (in general Endocrinology) with us. We look forward to working with her as a faculty colleague”.

Introduction by Dr. George herself: “It has been my lifelong dream to become a physician. I witnessed my father suffer from a stroke when I was only 10 years old. I grew up in Canada where I completed my undergraduate degree at University of Toronto with a dual major in Neuroscience and Psychology. I further pursued medicine at Windsor University School of Medicine. I completed my residency training in Internal Medicine at University of Pittsburgh Medical Center and recently completed my Endocrinology, Diabetes and Metabolism fellowship at Creighton University.

I am a member of the Alpha Omega Alpha Honor Medical Society. During my fellowship training I was mentored by Dr. Recker and Dr. Anderson who encouraged my decision to pursue research and

academics. By joining the team at the Osteoporosis Research Center, it has allowed me to continue my passion for research and medicine.

In my spare time, I love to travel and spend quality time with my family. I look

forward to working with the team at the ORC and continue to grow the knowledge in Osteoporosis and Bone Health”.

Dr. George will work with Dr. Recker and focus on the future of osteoporosis prevention and treatment through innovative research, training in bone biopsy and interpretation and preparation of bone histomorphometry.

In addition to working with our team at the ORC, Dr. George conducts her own patient practice.



## CHI Specialized Osteoporosis Clinics

Our physicians have worked diligently to broaden our teaching and patient care in endocrinology. All of our physicians specialize in endocrine disorders which include diabetes, thyroid, and metabolic bone diseases like osteoporosis.



Dr. Recker has Osteoporosis Clinic on Monday afternoons, and Dr. Zena has Osteoporosis Clinic on Tuesday mornings at our office on the CHI Immanuel campus. To make an appointment with Dr. Recker or Dr. Zena, please contact us at 402-280-4470.

In addition, Dr. Zena's main office is at the CHI Dundee Office located at 5002 Underwood Ave. To make an appointment at this office, please call 402-717-0785.



Dr. George has Endocrinology/Osteoporosis Clinics all day on Wednesday and Thursdays at CHI Health Clinic University Campus at 2412 Cuming St. To make an appointment with Dr. George, please contact her office at 402-717-0380.

## CHI Fracture Liaison Service (FLS)

One of our principle goals at the Creighton University Osteoporosis Research Center is to establish an effective FLS program. We are pleased to announce that we have implemented this service at the CHI Immanuel and CHI Bergan Hospitals. The program is designed to ensure that any patient who is discharged from a CHI hospital after treatment of an osteoporotic fracture 1) receives a diagnosis of osteoporosis and 2) is prescribed proper osteoporosis treatment. Only about 23% of such patients receive this at the present time. Notably, the risk of a future fracture in the 6 months after discharge is about 5-fold the general population if no treatment is prescribed at discharge. Proper discharge management will reduce this by 50%.

Osteoporotic fractures are a fracture or broken bone due to trauma equal to, or less than, a fall to the floor from a standing position, excluding digits, face, or skull. This can include tripping or falling over something or falling on the ice.

During your visit to the Osteoporosis Clinic, the doctor will review your medical history, including your recent fracture, perform a bone density test (DXA) if needed and specialized lab test to evaluate your risk for future broken bones. If it is determined that treatment in the form a medication is needed, those treatment options will be discussed.

## Bone Density Scans (DXA)

DXA is the gold standard and the only procedure accepted by the World Health Organization for determining bone loss. A DXA scan is quick and painless and will take 30 minutes or less.

It is important to have your scan done on the same machine whenever possible. Each DXA machine is calibrated differently, and since bone loss is calculated based on the machine it was done on, changing machines will not provide an accurate picture of your bone health. At the ORC, all of our scanners from the old office made the move with us, so if you have seen us in the past for your DXA, we would be happy to see you for your follow-up scans.

## Medical History

The doctor will ask questions to get a complete medical history. In particular, you will be asked questions about any personal history of fracture, family history of fractures and other risk factors for osteoporosis. It is important to let your doctor know the medications you have been taking during the last 10 years because some are known to increase an individual's risk for low bone mass and fractures.

## Physical Examination

Your doctor will give you a limited physical exam with emphasis on the spine or backbone. Many fractures in the spine go unnoticed by patients. Loss of height is often a sign of vertebral or spinal fractures.

## Laboratory Tests

There are some lab tests that are specific to bone health. We will check your medical records to see if any of these have been performed in the last six months. If not, we will collect blood for the needed tests.

## X-rays

An x-ray can help your provider determine if you have had any fragility fractures of the spine.

If you haven't had a bone density scan in a while, it may be time to come see us.

Your physician just needs to send us an order to have a scan performed.

You don't have to be a patient of our physicians to come for a DXA scan at the Osteoporosis Research Center.

Dr. Recker will interpret the scan, and we will send a report to your doctor and a copy to you.



## New Osteoporosis Drug Approved

The Food and Drug Administration approved an osteoporosis drug that represents the first new treatment approach in nearly two decades—a strategy based on a rare gene mutation in people with bones so dense that they never break.

The new drug, romosozumab (brand name Evenity), developed by Amgen in collaboration with the Belgian drug company UCB, restores bone without breaking it down, according to the findings of two large clinical trials. It is given as a monthly injection.

The new drug has a striking back story. In 2001, scientists reported that all of these effects resulted from a single gene mutation. The findings led researcher to understand how the body controls the building of bone. The Creighton University Osteoporosis Research Center made a contribution to the drugs development through the "Linkage analysis of a high bone mass trait in humans" which was conducted using participants from one extended family who carried the rare gene mutation.



This new prescription medication will be used to treat osteoporosis in women after menopause who are at high risk of fracture or who cannot

use other osteoporosis medications or for whom previous osteoporosis medications did not work well.

## New Research using Osteoporosis Drugs

Complex Regional Pain Syndrome (CRPS) is a rare, chronic, and disabling pain syndrome that can sometimes develop after an injury. It is characterized as non-stop, unbearable pain. The pain related to CRPS is much more than arthritis or other pain syndromes.

There currently is no cure for CRPS. Doctors use various medications to treat the symptoms of complex regional pain syndrome.

These can include: pain relievers such as aspirin, ibuprofen and naproxen sodium for mild pain and inflammation; antidepressants and anticonvulsants such as amitriptyline and

"In large clinical trials, patients taking romosozumab saw increases in bone density in their spines on the order of 15%—a huge figure, similar to the amount of bone made in early adolescence," said Dr. Clifford J. Rosen, an osteoporosis expert at Maine Medical Center Research Institute and member of an FDA panel that evaluated the data.

Currently available treatments include:

- Actonel (Risedronate) administered by an oral daily or weekly dose.
- Boniva (Ibandronate) administered by an oral monthly or quarterly IV dose.
- Evista (Raloxifene) administered by an oral daily dose.
- Forteo (Teriparatide) administered by a daily injection.
- Fosamax (Alendronate) administered by an oral daily or weekly dose.
- Hormone Replacement Therapy administered in a variety of forms.
- Prolia (Denosumab) administered by semi-annual IV infusions.
- Reclast (Zoledronic Acid) administered by an annual IV infusion.
- Tymlos (Abaloparatide) administered by a daily injection.

gabapentin, for nerve pain; steroids for inflammation; bone loss medication; sympathetic nerve-blocking medication to block pain fibers in the affected nerves; and intravenous ketamine, which is a strong anesthetic.

Other therapies that may help alleviate symptoms are heat, topical analgesics, physical therapy, biofeedback and spinal cord stimulation.

We recently completed participation in a research study for this rare condition. The medication being used was an osteoporosis drug in the bisphosphonate family similar to Reclast.

## News and Research Opportunities

We have a lot happening this year at the ORC. Some of our upcoming studies will be recruiting for Type 1 diabetics, post-menopausal women with osteoporosis and older adults with muscle loss. In addition, we will also be looking for healthy volunteers.

To check out our upcoming studies and new research opportunities go to our website:

<http://medschool.creighton.edu/departmentofmedicine/divisions/endocrinology/osteoporosisresearchcenter>

## Healthy Bones, Build Them for Life® Patient Registry

The National Osteoporosis Foundation (NOF) has recently announced the Healthy Bones, Build Them for Life® Patient Registry. A first of its kind tool in the osteoporosis field, the registry is designed to survey patients and caregivers about how osteoporosis and osteopenia impact their lives. This patient-reported information is collected anonymously, combined, and analyzed by the NOF to map out the patient journey. This will show the NOF and the broader bone health community what patients need and want most.

By participating in the Healthy Bones, Build Them for Life® Patient Registry, you will:

- Be able to compare your individual experience to the experiences of others;
- Show patients, physicians, researchers, regulators, payers, and others the seriousness of the disease;
- Demonstrate where patients need more information and pinpoint what additional resources would be helpful; and
- Help NOF to create programs that are most useful to patients and caregivers.

If you are interested in more information or being a part of the registry go to: <https://www.nof.org/hbfl/>

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## THE GIFT OF GIVING

Consider a donation in honor of a loved one to the Osteoporosis Research Center.

Mail this form to: Creighton Endowment for Osteoporosis, In memory of Sister Anne Evers, 6829 N. 72nd St., Suite 7400, Omaha, NE 68122

### A Contribution is enclosed to the Sister Anne Evers Endowed Research Fund:

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