Dr Carika Weldon announces the launch of CariGenetics

Good afternoon members of the media,

Thank you for joining me today. To say that I am excited is an understatement…and to be making this announcement on the International Day of the Girl Child…it's truly a momentous occasion. I want to be a shining example for all little girls out there…whatever you put your mind to, you can achieve.

Today, I am officially launching my company, a social enterprise…CariGenetics.

Short for Caribbean Genetics, CariGenetics will focus on genomics research in the Caribbean.

CariGenetics has been created out of a worldwide need for data from the genomics research field for people of Caribbean descent.

The global genome database used for drug discovery does not have Caribbean people represented. This means drugs are not designed for us and in fact can cause adverse effects.

It is possible to correct this, but only through empowering ourselves to do genomic studies for the benefit of our community and ensuring the data is fully owned by us.

Our overall mission is to conduct genomic research in the Caribbean by the Caribbean for the Caribbean. We aim to unlock the Caribbean genome to improve health outcomes for all and protect our region from climate change.

This journey is not one that can be taken alone and involves all of us working together for a better future tomorrow. In this light, I am elated to share that CariGenetics is in a strategic partnership with the Bermuda College.

We are bringing genetic research to the campus and allowing both eligible students and faculty to get involved through volunteering and internships. I invite the

President of Bermuda College, Dr Duranda Greene, to come share her remarks on our historic partnership.

Comments from Dr Greene:

Bermuda College was pleased to welcome Dr. Weldon to the College as an adjunct lecturer for its senior Biology class for special topics, this Fall.
Today we're honoured to be partnering with CariGenetics and to be participating in this pioneering, remarkable, and critical part of Bermuda's biodiversity and genetics research.

The research projects that will be undertaken portend unprecedented significance in understanding the unique genetic factors that impact human and environmental health in Bermuda, and in the wider Caribbean community.

We are particularly grateful for the exciting opportunity afforded Bermuda College students and employees not only to be affiliated with these projects that will be published in peer reviewed international journals, but which will also connect us with leading-edge research institutions – such as Rockefeller University, the University of Rochester, Cornell University and Northeastern University. Closer to home, it is gratifying to be able to join with BIOS and the Bermuda Cancer and Health Centre as they contribute more precise insight to localised and regional distinctives to this type of research.

This partnership with CariGenetics to use Bermuda College laboratories and workspaces, is a sound endorsement of the ongoing value of this institution to our community. It also demonstrates the College's ongoing commitment to provide innovative programmes and training, quality instruction, and comprehensive support for Bermuda College students. Thank you, Dr. Weldon and CariGenetics.

We look forward to a productive partnership that will benefit this community and others, for many generations to come.

Thank you, Dr Greene, for your gracious words.

Our vision is to enhance the Caribbean way of life through genomics to empower precision medicine and conserve our picturesque environment. We have chosen to start expanding genomic capacity in Bermuda first, with the launch of our first environmental project on our national bird, the Bermuda cahow.

A thriving species with over a million strong, they were believed to be extinct by the 1620s. However 36 birds were found 330 years later in Castle Harbour, making it one of approximately 350 "Lazarus species" in the world. Dr David Wingate, my fellow Bermudian scientist and national hero in my eyes, dedicated his life's work to restore

their population. With his invaluable consultation, the cahow project was birthed back in 2020, before the pandemic, which I am glad we can bring to fruition now.

Phase 1 of this project will sequence our critically endangered national treasure for the first time. A high-quality reference genome will allow us to better understand cahow health, determine genetic diversity, and track the findings over successive generations.

This work is in collaboration with Professor Erich Jarvis, Chair of the Vertebrate Genome Project, at Rockefeller University. Oxford nanopore sequencing will take place in Bermuda here at the College, where CariGenetics' first volunteer, my mentee Leone Trott, S1 student at the Berkeley, will get involved.

The work undertaken will create the draft genome.

To polish this draft, the rest of the work will take place in New York at Rockefeller University. I'm pleased to reveal that a Bermudian will be traveling to the university to be trained on million-dollar sequencing machines.

By also teaching a Bermudian how to perform the downstream data analysis, the first high-quality reference genome of the Bermuda cahow done by Bermudians will be complete.

Phase One of this project is supported by the Department of Environment and National Resources and is funded by the Bermuda Zoological Society. I invite Dr Ian Walker, Principal Curator and Veterinarian of the Bermuda Aquarium, Museum and Zoo, to share his remarks on this exciting project.

Comments from Dr. Walker:

The Bermuda Zoological Society (BZS) is excited to partner with CariGenetics and Dr. Carika Weldon on the Cahow Genome Project in order to gain more knowledge about our endemic island petrel.

Funding from the BZS will allow Dr. Weldon to produce a comprehensive reference-quality genome for the Cahow (Pterodroma cahow) to better understand disease susceptibility, rare genetic traits and understand the role of epigenetics in their health.

Additionally, in partnership with experts from Jamestown Rediscovery and the University of Connecticut, Dr. Weldon will attempt to obtain 'ancient DNA' from Cahow bones found at Jamestown, Virginia in 1609 to compare and contrast with the current population.

This may provide scientists with further information about how genetic bottlenecks affect species recovery when populations are significantly disrupted. In the case of the Cahows, the approximate million bird population was reduced to the point of extinction within decades of human settlement in Bermuda. Only 18 pairs were found when the species was rediscovered in 1951. Today, thanks to the hard work of people such Dr. David Wingate and Jeremy Madeiros, the population stands at 156 nesting pairs and it is the third rarest seabird on the planet.
The BZS congratulates Dr. Weldon on her new scientific venture and looks forward to working with her to better understand the native and endemic fauna of Bermuda.

Thank you Dr. Walker.

We will now open to the floor for questions from the media….