

# UP Reproduction Clinic helps SA Guide-Dogs Association breed 100th artificial-insemination litter

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*Celebrating the 100th guide-dog litter conceived via artificial insemination since the programme's launch in 2014*

Staff at the Reproduction Clinic of the Onderstepoort Veterinary Academic Hospital (OVAH) at the University of Pretoria (UP) Faculty of Veterinary Science joined the South African Guide-Dogs Association (SAGA) in celebrating the 100<sup>th</sup> guide-dog litter conceived via artificial insemination since the programme was launched in 2014.

This special litter of eight puppies was born to a yellow Labrador named Petra on 14 October 2022 at SAGA's Puppy Centre in Johannesburg. She was inseminated with frozen semen collected by OVAH staff from a dog named Murray.

Of the 100 litters born since 2014, 98 have been successfully raised. Most puppies were subsequently trained as guide dogs for visually impaired people, as support to children on the autism spectrum, and as service dogs to people struggling with physical disabilities. Staff at the OVAH Reproduction Clinic say they feel "like honorary aunts and uncles" whenever they see one of their assistance dogs on duty.



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"Since 2014 we exclusively use OVAH's services to ensure that enough assistance dogs are available," says Leigh de Beaufort, who is in charge of kennels, puppy breeding and puppy raising at SAGA. She says the 101st successful insemination was done recently, and the puppies are expected in November 2022.

"We've always been able to rely on OVAH for various services to help us best care for our dogs," says Caroline Human, Kennels Manager at SAGA. "Over the past decade, however, this interaction has become more involved and more frequent. We are exceedingly happy with their outstanding service."

#### **Helping others**

"It is a privilege to help people living with disabilities in this way," veterinary reproductive specialist Dr Susan Fouché says about the work the OVAH Reproduction Clinic does. "Our whole clinic is involved in managing and handling the female dogs, from the moment they are receptive, or 'in heat'."

The specialists involved (Dr Fouché, Dr Geoff Brown, and Prof Martin Schulman) perform clinical procedures and test progesterone levels (a hormone secreted by the ovaries) to determine when the best time is to secure conception. "Because of dogs' particular reproductive cycles, this can take up to three weeks," adds senior veterinary sister Nicolien Fourie. "During this time, staff provide the dogs with enough food, love and attention, and of course exercise too."

#### **Specialised insemination technique**

Once the optimal time for insemination is determined, OVAH staff inject frozen-thawed semen through a pipette directly into the lumen of the dog's uterus. A technique called trans-cervical artificial insemination (TCI) is used. Reproduction specialists at OVAH have used this method since 2014, after acquiring a ridged video-endoscope, which allows them to watch on screen as they pass a flexible pipette through the animal's cervix and into the uterus.

There is therefore no need for surgical artificial insemination under general anaesthesia, Dr Fouché says. TCI reduces risks to the animals involved and improves animal welfare.

#### **Expanding the gene pool**

SAGA had previously relied on natural mating and sometimes also surgical AI with frozen-thawed semen, but in 2014 the association decided to start importing frozen semen from reputable international guide dog schools in Australia, the USA and UK. "We wanted to expand the gene pool of

assistance dogs used in South Africa, and to improve the statistics of our progeny of puppies in terms of their health, working potential, and temperament,” De Beaufort says.

It was a natural fit to choose the OVAH Reproduction Clinic as its partner, because at the time the unit had just acquired its video-endoscope, which made TCIs using frozen-thawed semen possible. SAGA and OVAH also enjoyed an existing working relationship, with UP staff providing medical assessments and scans to SAGA when needed.

According to De Beaufort, SAGA has also since 2015 relied upon UP staff to collect and freeze semen from approved male dogs. She hopes that SAGA will in future be able to share approved frozen semen with other members of international guide dog schools, to further expand the gene pool of local assistance dogs.

The use of frozen semen to breed dogs is common practice today. Freezing semen ensures almost indefinite preservation of the genes of a sire with the desired traits for an excellent service animal. It can be used to raise future generations, and also allows for the safe international movement and transportation of desired genes.

### **Puppies**

SAGA aims to breed at least 80 puppies annually, to ensure that enough animals are available to receive formal training as guide dogs. Around 50 dogs graduate each year. Thanks to TCI, 717 puppies have already born to SAGA dogs between 2014 and October 2022. Most are Labradors or Golden Retrievers.

“Puppies initially live in the homes of volunteers supporting SAGA’s puppy raising programme, before they are called in for formal training,” De Beaufort explains.

### **About the 100th litter**

- The litter of Labradors was born on 14 October 2022.
- Staff of OVAH’s Reproductive Clinic artificially inseminated the mother, Petra, with semen from SAGA’s own pool of frozen semen.
- Semen from the donor, Murray, was collected and frozen at OVAH in 2020.
- Murray is currently in formal training to become a guide dog.
- Petra’s litter is the “P” litter, meaning that all of her puppies’ names will begin with the letter “P”.
- Petra’s dam (female parent), Nadya, has since gone on to graduate as a guide dog.
- Petra’s sire (male parent), Yogi, is a stud from Guide Dogs Australia NSW/ACT.
- Petra was also bred by SAGA, with assistance from the OVAH Reproduction Clinic. She was born on 8 August 2020.
- There were six (two male, four female) dogs in her litter, all yellow.
- The other five in her litter all work as assistance dogs.

**Find out more about [how the artificial insemination procedure works.](#)**

- Published by Xolani Mathibela