

## Abstracts of the 2018 International Guide Dogs Federation (IGDF) Seminar

The International Guide Dog Federation (IGDF) is comprised of over 90 member organizations, whose purpose is to serve people who are blind or vision impaired around the world, by training and providing Guide Dogs.

Member organizations have been accredited against agreed international standards and are re-assessed every five years.

The IGDF facilitates a sharing of knowledge, experience, highest quality standards, methodologies, and help for new or existing schools wanting to improve the quality of their operations. This takes place through a biennial seminar which is attended by around 300 delegates from all corners of the globe.

Presentations based on the following abstracts were offered to delegates at the most recent seminar, held in Sydney, Australia (September 13–16, 2018).

## Vision loss in the future: the importance of integrated care in the era of ocular imaging

Keynote Presentation

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Centre for Eye Health, UNSW Sydney, Australia

The Centre for Eye Health (CFEH) is a not-for-profit initiative of Guide Dogs NSW/ACT and UNSW Sydney, dedicated to reducing preventable vision impairment through the early detection of eye disease. The Centre was initially conceived following a strategy meeting in 2006 by the Board of Guide Dogs NSW/ACT. At that meeting, a decision was made to explore opportunities to broaden and enhance the services Guide Dogs provided to the community. An independent survey of Guide Dogs clients revealed that many clients felt that a lack of access to eye care had led to their vision loss. They expressed a strong desire for preventative measures to promote better eye health in the community. With that vision in mind, CFEH now provides state-ofthe-art eye imaging, diagnostic services, and glaucoma management to the general public free of charge.

In 2017, CFEH entered a new phase of growth. The ageing population and the rising prevalence of chronic eye conditions, such as age-related macular degeneration, glaucoma, and diabetic retinopathy, has led to an unprecedented demand on health care. Already in Australia, the waiting period for a routine, non-urgent, public hospital ophthalmology appointment is in excess of three months. A similar experience has unfolded in the UK and New Zealand. A second problem is the associated increased number of patients with vision loss requiring vision rehabilitation. To overcome both of these problems, multiple members of an inter-disciplinary care team must often work together in order to ensure the best outcome for the patient and a continuity of care from diagnosis to rehabilitation. Thus, and in addition to its core function, CFEH also operates as a unique model of collaborative care. The center was originally devised as a satellite clinic of Prince of Wales Hospital, and more recently opened its first satellite clinic in Sutherland Hospital.

New models open doors. The benefits of the CFEH integrated care model are manifold and include better care and health outcomes for patients, higher cost efficiency, and improved job satisfaction for clinicians. This talk will address some of the barriers to integration and solutions for moving forward. Centre Director and prominent vision research, Michael Kalloniatis, will draw from CFEH's eight year history of operations to describe efforts dedicated to the fight against vision loss. Integrated Care Coordinator, Angelica Ly, will discuss exemplary cases of integrated care: where we have come from, where we are, and where we will be going. The talk will address topics of patient-centered care, increasing patient demands for transparency in health care, the rapid impact of emerging new technology, multi-disciplinary, and virtual care practice models.

### Guide Dog mobility instructor and technical staff education – how do we provide it?

Workshop

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Guide and Assistance Dog Training Dog School, Slovakia

The IGDF Standards number 3 "Technical Staff Education and Development" and number 4 "GDMI Education Programme" have been valid since several years and the former IGDF Education Taskforce did an impressive work on GDMI curriculum and syllabus. The work on the contents of the education continues also in the view of the international standards being developed, which will be valid also outside of IGDF.

It is the "How" do we provide that education, that many, especially smaller Guide Dog schools with fewer resources, struggle with. This workshop will strive to provide answers and fuel discussion.

The presenter will give an overview of alternatives and the considerations for the alternatives for GDMI and other technical staff education based on personal experience and knowledge of the current possibilities through her work for the Development Committee, IGDF. The workshop will be interactive and will promote discussion, feedback, and brainstorming with the attendees on various issues:

- What are the technical areas that the organizations struggle most with to provide adequate education in?
- What are the main barriers in securing or providing education?
- How could we overcome these barriers?
- What are the possibilities that can be reached locally, internationally, outsourced from other fields or through collaboration with other Guide Dog schools?
- How could IGDF and the Development Committee, in particular, assist the schools in order to reach and go beyond the required standards in staff education?

The workshop aims at reaching three goals:

- 1. Make schools that might have difficulties with providing adequate staff education aware of the existing and future possibilities.
- Promote collaboration attract interest from well-established schools to share their experience with staff education and assist others; and facilitate and promote collaboration of smaller schools to join their efforts and secure education for their staff as a group.
- 3. Collect important feedback and brainstorm on the most effective ways how the Development Committee IGDF can facilitate or provide staff education to the organizations in need.

### Puppy raising project in prison review of 10 years

Workshop Tsuyoshi Yokota Japan Guide Dog Association, Tokyo, Japan

Overview: JGDA has a puppy raising project with inmates at SARPC (Shimane Asahi Rehabilitation Program Center). It started 10 years ago. We will review the past 10 years in order to improve the future program, which will go with our policy of "non-sacrificial program for everyone, including dogs."

Background: SARPC is the fourth facility in Japan run by Private Finance Initiative (PFI: a scheme whereby public services raise funds for capital projects from commercial organizations, Oxford Dictionary). Our puppy project is the only one in our country that involves animals as part of the social rehabilitation process for the inmates. It is said that Japanese correctional facilities have different system, rules, and environment, compared to those abroad.

Method: review of records from the past 10 ye0ars, including recidivism rate, guide dog success rate, etc.

Outlook: through this presentation, we would like to acquire knowledge and experience from schools that have similar programs, so we could apply to improve our project.

### Website accessibility by design

Workshop

Morry Anne Angell (mangell@guidedogs.com) Guide Dogs for the Blind, Inc., San Rafael, CA, USA

The prospect of building or updating your organization's website can be a daunting task on any level. But when you are committed to not only developing a beautiful site that highlights your mission, brand, and visual identity, but that is also accessible for those who are blind or visually impaired, it can be hard to know where to start. The good news is that an accessible website does not have to come at the expense of a stunning website.

By understanding and employing best practices for non-visual accessibility, your organization will have the ability to better reach and serve more people who are visually impaired, and will lend credibility to your efforts. In the same vein, an aesthetically pleasing website will assist with your organization's overall goals, including attracting and retaining clients, donors, volunteers, and friends.

Accessibility is a core tenet of Guide Dogs for the Blind's brand philosophy, and integral to all of our digital touch points. This presentation will focus on how we accomplish those goals, and tips for how you can do the same.

#### Attendees will learn:

- why accessibility and aesthetics do not have to be mutually exclusive in website design, and why that matters for your brand and reputation;
- ways to prioritize or improve non-visual accessibility on your website, and handy tips for accomplishing those goals;
- the difference between website accessibility and website usability, and why integrating both is important;
- the importance of engaging users of adaptive technology early and often in your web design and development process;
- what to look for and/or require when choosing a website developer; and
- how to add accessible elements beyond your website and across your digital footprint.

## Recognizing and treating compassion fatigue in the industry

Workshop

Dan Casey (Patrick Glines Patrick.glines@visionaustralia.org)

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Compassion fatigue is defined as a "combination of physical, emotional, and spiritual depletion associated with caring for people in significant emotional pain and physical distress." If left untreated, compassion fatigue can cause burnout.

However, those presented with evidence of their symptoms frequently react with denial or hostility. People suffering from compassion fatigue find it hard to admit that they are performing poorly, that they are not actually fulfilling a large part of their job. They may actually feel they are working harder than others, but in reality they are accomplishing less.

Employers should be aware that compassion fatigue exists in our industry and have professional development, training and supervision in place to help employees during and after compassionate-driven work.

We must also learn to care for ourselves as well. We need to work together to help colleagues become

aware and accepting, and work within our organizations to create a compassionate culture where the leaders care as much about our emotional health as our work performance.

But, how do we recognize our own compassion fatigue and, how do we tell a colleague that we think he/she has compassion fatigue, what are we afraid of and what is the first step towards solving the problem?

# Best Foot Forward (BFF) Program – an innovative trial approach to physiotherapy for children with vision impairment combining dog mobility with targeted physiotherapy intervention

Workshop
Tracey Stuart and Susan Clark
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(GDSA/NT)

Children with vision impairment often experience delay in motor development and motor skills, particularly locomotor activities. Due to lack of early movement experiences, inefficient motor patterns can develop which require the use of extra energy to complete daily tasks as well as drawing unnecessary attention to the child due to the way they move. As a result physiotherapy and orientation and mobility intervention become an essential part of the child's developmental needs.

Guide Dogs South Australia & Northern Territory (GDSA/NT), in conjunction with South Australia School for Vision Impaired (SASVI), completed a 10 week trial involving four, seven and eight year old students with vision loss and identified gait issues, who received specific and targeted weekly, physiotherapist intervention while mobilizing with a dog simulator (Dog Sim) and Autism assistance dogs in training. Four standardized physiotherapy assessment tools were used to measure pre- and post-differences across balance, gait and posture, and physiotherapy intervention was specifically tailored to the needs of each individual child.

It was proposed that the introduction of walking with a dog/dog sim would improve gait, balance, and posture in children with vision impairment. The freedom of movement offered by removing the responsibility of safe mobility from the child would provide increased opportunity to focus attention onto the assimilation of additional information and feedback.

Results indicated that all students showed improved scores in a minimum of two of the four tests, with one

participant's score increasing by 74%. In addition, subjective findings suggested terminology and concepts relating to posture and mobility were retained and generalized to other environments. For example one student recounted preparing for a singing audition by going through a postural mental checklist, as established during her BFF sessions. Other key stakeholders such as teachers and parents also reported observing increased confidence, engagement, independence and with one student, an increased ability to cope with "sensory overload" situations which initially caused him distress. In addition, the dogs in training were given the opportunity to habituate and be desensitized to a child with an atypical gait.

While results suggest that there is validity in investing in this type of intervention to complement orientation and mobility programs, further work needs to occur to identify standardized physiotherapy assessment tools which allow for any limitations occurring as a result of vision impairment and/or additional disabilities. It would be appropriate to investigate the introduction of orientation and mobility assessment tools to complement the program. A repeat study with larger participant numbers would provide richer data and refining the way in which the dogs are used during the session would be warranted. It would also be appropriate to explore the benefits within core orientation and mobility skills, i.e., mental mapping and spatial awareness following the introduction of a dog or dog sim into training programs.

## Everyone poops [...] just not in the right place: our journey to early relieving training puppies beginning at three weeks of age

Workshop

Jenai Otis (jotis@guidedogs.com), Kathleen Fischer and Jason Bellucci-King

Guide Dogs for the Blind, Inc., San Rafael, CA, USA

At Guide Dogs for the Blind, one of our organizations initiatives is "Breed less, create more guides." Dogs that are unable to maintain an appropriate relieving schedule are unable to continue in guide work training and are released. By initiating early relieving training we hoped to reduce the number of these releases. At the same time, we asked our volunteer Puppy Raisers what were some of their biggest challenges in raising puppies to see if we could improve the puppy raising experience and make the transition from our kennels to a home environment easier for our puppies. One of the biggest initial challenges for our raisers was teaching the puppy appropriate relieving habits. We knew many private breeders had been successful in

potty training puppies in a home setting with one or two litters at a time. Our challenge was to find a way to train multiple litters, in a kennel environment, who were being cared for by varying staff of 20+ people.

We explored various materials for our relieving training set ups. We chose some test litters and orchestrated a gradual transition to our new early relieving training protocol. We discovered that the puppies, having known no other way, were relatively receptive to the training. We continued to evaluate the overall success of our endeavors and feedback from Puppy Raisers confirmed that we were on the right track. We made some further changes to the protocol, materials and schedules and ended up with a system that has been very successful. These efforts made in their early development, along with more visual, audio and tactile stimulation, prepares our puppies for a smoother transition to the outside world as well as for the training in guide work that lay ahead of them. Feedback from our raisers has been overwhelmingly positive and initial data suggest a promising reduction in dog releases.

Participants will learn what worked and did not work through our journey, how to build potty boxes using PVC pipe, what relieving schedules worked for our puppies, and how others can implement a potty training process. The impact of human intervention during development on the occurrence of body sensitivity and dog outcome will also be discussed.

### Recruitment – implementing more rigor to identifying "fit for role"

Workshop

Catherine Smart and Patrick Glines (Patrick.glines@ visionaustralia.org)

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Traditional recruitment approaches like a competencybased interview have its limitations when assessing applicants in a unique environment like ours and we need to understand the answer to the question "how can you decrease recruitment risk, improve the outcome and increase the probability of a quality hire?"

We need a rigorous recruitment approach to support clear identification of talent resulting in a confident quality hire. Our approach is efficient, scalable, robust, transparent and developmental.

Members of the Leadership Group at Vision Australia Seeing Eye Dogs will share the approach, findings

and learnings after designing and implementing an Assessment Centre to address traditional recruitment challenges in our unique environment.

We will focus on the benefits of an Assessment Centre approach, considerations in the design phase, provide descriptors of the key activities and share insights into key findings, giving the participants the tools they need to start using assessment panels at their organizations.

### How behavior checklist data are used to improve our dogs at guiding eyes for the blind

Workshop

Jane Russenberger (jrussenberger@guidingeyes.org)
Guiding Eyes for the Blind, NY, USA

Guide Dogs must exhibit essential aspects of behavior and the IGDF Standards require staff development in assessing behavior. The Behavior Checklist (BCL) has proved to be an easy to learn, open source scoring system for guide dog behavior. It is being adopted across the world, providing consistent terminology within and across organizations wishing to collaborate. Translations in multiple languages are available. Behavior Checklist data can be entered along with other important data on dogs in the International Working Dog Registry (IWDR) database which is a global database for working dog programs. Contact support@iwdr.org for more information.

This presentation provides an overview reading stress responses in dogs and the testing situations at multiple age points Guiding Eyes is using including puppy testing, observations working with puppy raisers in a town setting, during the GDBart test and from observations during guide dog training.

An overview of how the BCL data is used to identify dogs at risk, career sorting and selecting replacement breeding, and making mating decisions.

Results of our most recent analyses will be shared on the accuracy of prediction at various ages, the genetics of behavior for common behaviors important in guide dog work and insights from multiple observations over time. A few key findings:

- Prediction accuracy increases with age. The genetic makeup of a dog is fixed at birth but behavior is heavily influenced by the environment.
- The four month assessment with the puppy raiser and pup in an appropriate town setting

coupled with a questionnaire from the puppy raiser provide helpful data to estimate the heritability of many behavior checklist items such as noise fear, activated by stress and ability to return to a productive emotional state. Assessments at this age have good genetic correlations to the scores provided by the guide dog instructors when the dog is in training. A 13 month assessment is also useful, however, requires 9 more months to gather the data.

 BCL data from puppy tests are useful within the organization, however, less reliable between organizations due to variations in socialization.
 Puppy tests are typically conducted around seven to eight weeks of age which is halfway through the critical socialization period.

### A journey to R+ puppy raising

Workshop Pat Cook (pcook@guidedogs.com) Guide Dogs for the Blind, Inc., San Rafael, CA, USA

In early 2013, GDB embarked on a five-year project to transition Puppy Raising to R+ methods. Although the department had gradually been utilizing more food reinforcement in puppy raising, we anticipated a transition to more operant training methods. Challenges included training and participation of remote field staff, testing and refinement of training techniques and dissemination of information to thousands of volunteer leaders and raisers. We have successfully developed puppy training protocols that maximize the power of positive reinforcement resulting in enormous benefits for the dogs and volunteers alike. We look forward to the opportunity to share our experience and knowledge gained on this journey.

Attendees will learn about:

- the shaping of our vision;
- how we decided which techniques to use, including examples of what was tried and discarded and why;
- instruction of staff, most of whom were "crossover" or traditional dog trainers;
- motivating volunteer leaders, many of whom were resistant to changing methods that worked for many years;
- possible negative behaviors to be aware of in raising guide dog puppies using food reinforcement techniques;
- using technology to help deliver methodology and ensure consistency;

- actual techniques employed and overcoming challenges in application in low-skill raisers; and
- benefits observed, including those unforeseen at initiation of the project.

## Measuring functional vision and O&M skills to profile guide dog handlers and measure training outcomes

Keynote Presentation

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Swinburne University of Technology and Guide Dogs Victoria, Australia.

Introduction: new measures of functional vision for mobility (VROOM) and functional O&M (OMO) enable O&M specialists and guide dog mobility instructors to profile any client with relevant measurement data. The VROOM and OMO tools are co-rated by the instructor, the client and other relevant stakeholders during ordinary O&M assessment. The tools rate observed travel skills out of 30 and vision/mobility-related wellbeing out of 20, leading to a score out of 50 for vision and 50 for mobility. These tools help to streamline functional vision assessment and measure the client's travel capabilities in any location in the world, using tasks and venues that matter to the client. The tools enable professionals to compare clients of any age and dis/abilities, measure program outcomes, identify relevant referral criteria and understand the implications of different travel needs and styles from comparable number data. The VROOM and OMO tools are person-centered and were developed from the lived experience of adults with advanced retinitis pigmentosa (RP; n = 43) in the context of bionic vision research using grounded theory methodology.

Objective: the purpose of this study was to understand the broader benefits of guide dog mobility, pilot the VROOM and OMO tools in conversations with guide dog handlers, measure clients' functional capabilities, and refine the language and structure of the rating scales.

Methods: during 2015–2016, guide dog clients from Guide Dogs Victoria (n=51) were interviewed about guide dog mobility, during which they co-rated their functional vision and mobility skills using the VROOM and OMO tools. Most were phone interviews, with some face-to-face, supplemented by e-mail contact to clarify details. VROOM and OMO ratings were made on the basis of free-walking around home, then using the dog to support travel beyond home during

daylight hours. The mixed data (measures and interview transcripts) were analyzed qualitatively, statistically and together, including use of cluster analysis.

Results: clients were aged 17-85 (median 56, 53% female), rating VROOM 0-40 out of 50 (22% NLP) and OMO 24-50 out of 50. A functional vision (VROOM) scale was developed from the mixed methods data, with categories from Functional blindness (0/50) through 50 shades, fragments, formwork, features and faces to visual fluency (50/50). Clients with VROOM 10-40 used visual and non-visual formats for reading but only those who scored VROOM >30 preferred text. Most guide dog clients were either elite (OMO >41, 41%) or competent (OMO 31-40, 47%) travelers. Basic travelers (OMO 21-30, 12%) indicated spatial dysfunction, though their vision varied. Cluster analysis identified four distinct user groups that aligned with the OMO data. We called the groups intrepid explorers (most capable), independent roamers (younger, good mental mappers), social navigators (older, poorer mental mappers), and homebodies (older, unwell, poor mental mappers, limited lifespace), Each of these groups had different requirements of their dog.

Conclusions: VROOM and OMO data showed that blindness does not necessarily equate to incompetent travel skills; blind people can be elite travelers; low vision does not necessarily resolve mobility problems; and spatial dysfunction limits mobility more than low vision or blindness. Guide dog mobility instructors can use VROOM and OMO tools to generate practice-based evidence about functional vision and mobility to profile clients, review and improve services, and validate funding claims.

## Curling: it's not just an Olympic Sport – the tools and skills needed to prevent it

Workshop Cathie Laber (claber@guidedogs.com) Guide Dogs for the Blind, Inc., San Rafael, CA, USA

In Guide Dogs for the Blind's (GDB) guide work terminology: a "curl" is the undesirable behavior of the dog guide angling to the right in front of the handler (at curbs or other static positions). The result of this behavior is frequently misaligning to the intended line of travel for the visually impaired client.

Because curling affects curb approaches and street crossings, an individual's orientation can become compromised, possibly leading to major safety hazards. In addition, curling can become over time, ergonomically uncomfortable for the instructor and

client alike. Finally, a curling behavior is frequently time-consuming to "un-train" and unfortunately once learned, the chain of behaviors generally becomes an ingrained behavior for the dog guide.

GDB has gained considerable experience and knowledge in the benefits of primary reinforcement techniques for guide dog programs, including preventing problems that are inherent-when using such a powerful reinforcer as food rewards. In keeping with our mission of maximizing positive reinforcement and sharing this knowledge with others, this presentation will provide meaningful applications of positive reinforcement (R+) based training.

The workshop will give an overview on how to prevent curling proactively via the applications of positive reinforcement in the preliminary/early stages of formal guide work. This will be particularly influential to schools globally who have embraced positive reinforcement training over the past few years. Participants will learn:

- Why the curling behavior is detrimental (orientation, team's safety, ergonomic considerations, etc.)?
- How GDB incorporates equipment and innovative training techniques?
- Emphasis on precision timing and reward delivery placement.
- Prerequisites and step-by-step training instructions.
- Discussion on problem solving common scenarios
- Photos and videos throughout the PowerPoint presentation.

## Guide Dog sponsorship as a Major Donor package – how to provide a better supporter experience

Workshop

Hannah Allsopp (hallsopp@guidedogs.com.au) and Chris Waugh

Guide Dogs NSW/ACT, Australia

Guide Dogs NSW/ACT redeveloped our Guide Dog sponsorship program in 2017, to increase income by providing a better experience for Major Donors. This presentation explores how to provide a better supporter experience, particularly addressing efficient ways to show supporters the impact of their donations and navigating the issue of reclassified sponsored dogs that do not become Guide Dogs.

Like many Guide Dogs organizations, Guide Dogs NSW/ACT has run a Guide Dog sponsorship program for a number of years, giving Major Donors the opportunity to donate \$35,000 and follow a puppy on its journey to become a Guide Dog. In the past, the program has been an important income stream but was not reaching its income potential and sometimes caused disappointment to donors when their expectations for their puppy were not met. It became clear that it was critical to improve the supporter experience without creating administrative issues or decreasing return on investment (ROI) for the program.

The redevelopment of the program was informed by extensive research and consultations. We employed a consultant to conduct qualitative research interviews with current and recent Guide Dog sponsors in order to determine their motivations and attitudes toward the program. We also consulted staff, including relationship managers and services staff, both to test ideas and gain buy-in from all stakeholders.

The research identified two major concerns: first, the need to show supporters the impact of their donation; and second, the related issue of dogs being reclassified and not becoming Guide Dogs.

We solved the issue of demonstrating impact through the design of new Progress Reports for each puppy. The new reports are more efficient to put together, while clearly demonstrating the use of supporter funds and the outcomes for clients. We have also added information about the client each dog is placed with while navigating issues of client privacy and dignity.

We solved the issue of dog reclassification through better expectations management in the language used through all materials. The program now values and celebrates the different outcomes for dogs in the program and supporters are strategically reminded that their puppy could graduate in a range of "careers."

The new program has produced positive feedback from supporters and is beginning to generate word-of-mouth marketing as well as repeat sponsorships. It provides a successful model for other Major Donor packages to follow.

## Collaboration to breed more successful dogs using the International Working Dog Registry (IWDR) database

Workshop

Eldin Leighton<sup>1</sup> (Eldin@eleighton.us), Christine Baroni-Pretsch<sup>2</sup> (c.baroni-pretsch@chienguide.ch) and Gail Glover<sup>3</sup> (gailg@guidedog.org.za)

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The International Working Dog Registry (IWDR) is a web-based record-keeping system where organizations can maintain records on Client Services, Canine Health, Welfare, Assessment and Training, Breeding and Personnel as required in Standard 10-Administration. Data private to each organization, such as puppy raiser details, clients and status history of dogs, are seen only by staff within the organization.

In addition to providing tools for maintaining records on individual dogs, IWDR combines data on pedigree-related dogs within a breed, but across organizations, to produce powerful tools for improving genetic management of each breeding colony. Each organization, regardless of size, is thus enabled to systematically improve health and behavior traits by producing successive generations of puppies that are genetically improved over time. This objective is accomplished by combining physical measurements on genetically related dogs across all organizations using IWDR, so traits such as body sensitivity, hip quality, and skin allergies can be systematically assessed using modern genetically informed statistical models based on pedigree and genomic links among common ancestors. This approach produces Estimated Breeding Values (EBVs), which enable ranking dogs based on genetic merit for a particular trait. Within each organization, this EBV ranking enables an objective method for identifying which young adult dogs are genetically superior in your colony and should be kept for breeding.

Small, genetically isolated canine breeding programs will only survive and improve over the long term when all participants agree to collect common data on all or most dogs in a combined database, thus working toward a common goal to produce genetically improved, healthy dogs well-suited for the work at hand. Furthermore, working together increases the effective genetic population size, thus enabling genetic improvement for everyone while also helping maintain genetic diversity. To accomplish these objectives globally, we are dependent upon each other by sharing dogs and semen. IWDR enables this sharing while also protecting the individual autonomy of each organization.

### Small Guide Dog programs achieving great outcomes – strategies on how to operate with limited staff and produce high-quality dogs

Workshop Kim Ryan Visibility/Guide Dogs Tasmania, Australia

This workshop will be of benefit to smaller Guide Dog schools and emerging IGDF Applicant Organizations where the primary Guide Dog Mobility Instructor (GDMI) is required to manage a number of different operational roles. Guide Dogs Tasmania in Australia has shown that limited resourced programs can achieve big outcomes through the development of effective and efficient systems to enable smooth transition of dogs throughout the entire program, from puppy to working Guide Dog.

During this workshop, you will hear how, after being the sole GDMI in Tasmania for a number of years looking after all aspects of the program (puppy raising, training of dogs, client work, adoption program, general enquiry and administration), processes needed to change to enable a "lean" but rigorous program to continue to provide high-quality services to both clients and volunteers. Strategies had to be implemented to ease the "juggling act" and change focus from providing a large quantity of sessions to making the best use of my time by producing more quality sessions for pups and volunteers from the beginning.

Small programs with limited staff need to work on a model to ensure:

- That every dog has the optimum opportunity of success.
- The best possible use of educated and trained volunteers who feel valued and appreciated ed and have plenty of learning opportunities. Without our volunteers we would not be able to have a Guide Dog program in Tasmania.
- There are efficient processes for early puppy learning and development to ensure great outcomes for dogs.
- There is an end goal focus throughout the entire program – the working Guide Dog, resulting in less remedial aftercare with clients to work on the behavioral issues in dogs.
- Clients are "listened to," and changes are made early on in the life of a Guide Dog to ensure higher quality outcomes.

Great programs with small teams and limited resources are possible – and through the introduction

of minor program adjustments we have seen significant outcomes across the program, with volunteers feeling more valued and involved, dog training time decreased, and the main reason a dog being withdrawn from the program is now due to health rather than temperament.

Starting early in the puppy development program, focusing on the requirements of a working Guide Dog, and making volunteers more aware of the desired outcome, decreases training time and makes an easier transition of the dog to the client with less aftercare and fewer challenges. Guide Dogs Tasmania pride ourselves that since we implemented this more inclusive system, all dog/handler matches have proved successful, and I look forward to sharing ideas with you all.

## How to measure functional vision and O&M outcomes

Workshop
Lil Deverell (Ideverell@swin.edu.au)
Swinburne University of Technology, Australia.

Introduction: measuring a client's functional vision and O&M skills has long been problematic. (i) Much O&M knowledge is tacit, gained through lived experience, and is difficult for clients or instructors to explain. (ii) Clinicians (who are in control) differ to functional professionals (who are client-led) in the ways they approach assessment of a client's O&M skills. (iii) The notion of measurement is founded on standardization, but person-centered practice respects and values individual differences in clients. (iv) Until recently, only limited measures of functional performance have been available, such as checklists that do not aggregate to a single comparable score. The VROOM and OMO tools resolve these problems and are designed for use during ordinary O&M assessment. VROOM = Vision-Related Outcomes in Orientation and Mobility and OMO = Orientation and Mobility Outcomes. Each of these tools reduces functional assessment information to a score out of 50.

Objective: this workshop will teach instructors to assess a client using the VROOM and OMO tools.

Methods: after some initial information, workshop participants will pair up with colleagues, wear low vision simulators and test the VROOM and OMO tools in a simulated O&M assessment session. Participants will then return to debrief, interpret the measurement data, critique the VROOM and OMO tools and consider the implications for the guide dog industry.

Results: guide dog mobility instructors and O&M specialists can use the VROOM and OMO tools to generate comparable practice-based evidence about the functional capabilities of any O&M client, of any age or disability, anywhere in the world. These tools are currently being validated in research partnerships with O&M and GD organizations internationally.

Conclusions: when used routinely during typical O&M assessments, VROOM and OMO data will enable O&M specialists to profile O&M client cohorts, evaluate program outcomes, and improve O&M services accordingly.

## The impact of human intervention during development on the occurrence of body sensitivity and dog outcome

Workshop

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Vision Australia Seeing Eye Dogs, Kensington, VIC, Australia

Body sensitivity in working dogs can be difficult to overcome and it is widely accepted that handling in early puppy development can impact on the development of body sensitivity.

Potential links between body sensitivity (including the development of equipment sensitivity) and the incidence of multiple ear and/or skin infections and other health concerns in young dogs has been investigated. This information, if found to have value, could be employed by Vets, Kennel staff, Puppy Attendants and Puppy Development Trainers, by adjusting the handling approach to treatment of ear and/or skin infections and other health concerns.

An investigation into the links of supplementation of neonates, handler awareness, and body sensitivity will also be reported on.

In cases where body sensitivity may develop, a modified handling approach could be adopted by the carer and puppy trainer to reduce likelihood of its development. Conversely, if a Dog trainer or instructor is aware of a dog coming through the Puppy Program with these concerns, the dogs' assessment and early training could be tailored to meet their needs, and it may assist in increasing success rates of puppies going into training and ultimately graduating.

It is our hope that all aspects of handling in a dogs' development can be considered and managed mind-

fully so that body sensitivity seldom arises due to our interventions.

### Electronic travel aids versus guide dogs

Workshop Noëlle Poidras Les Chiens Guides D'Aveugles de L'Ouest, France

They made their choice.

The presenter has worked for more than 20 years as GDMI for a French Guide Dog School, first trained as guide dog trainer in France, then qualified as 0&M in the UK, she has long career in the field of guide dogs and orientation and mobility.

When her school decided in 2006, after more than 40 years of servicing people with guide dogs exclusively, to start a programmer to deliver electronic travel aids, she immediately jumped into this new activity and never left it.

The cane programmer chosen by this school has continuously improved since 2002, year of the first edition. Nowadays, it offers a real alternative to guide dogs.

Using infrared and visible lasers, this device is accurate, reliable, robust, and easy to use. After a two week training session and a regular follow up, blind or visually impaired people can walk safely and comfortably in the country, cities or indoor areas such as shopping malls, providing a travel quality comparable to guide dog teams. The electronic cane as well as the guide dog gives confidence in the efficiency of the travel.

This presentation will give you an inside view of the program, its content, and the results over more than 10 years. Learn more about the kind of applicants, how and why they choose either the electronic cane or the guide dog program. Discover a client-based preliminary orientation process which helps them to make the personal best choice.

We propose to:

- Get an overview of the required criteria to fit into the program and join us comparing cons and pros of both programs, based on the client's needs and his environment.
- Discover the clients motivations to choose such a program rather than applying for a dog.
   Discover the whole process from initial request to the final training and including the follow up/ after care of these clients.

The presentation will be based on videos and user's comments and experiences based on people in training as well as long-term users.

Obviously, in this school, the visually impaired persons who have chosen an electronic travel aid can later apply for a guide dog and the other way round it is possible too.

We will comment a benchmark of the last 10 years activity, to show how this new offer influenced the existing programs such as guide dogs.

At the end of the presentation, delegates could discuss opportunities and risks of implementing such a program in their guide dog organization.

#### Use of Braille tile in guide dog mobility

Workshop Takashi Shimamoto and Ryo Hirano Japan Guide Dog Association, Tokyo, Japan

Background: we have experienced a tragic incident where a guide dog user fell from a platform of a subway station in Tokyo, on August 2016. The guide dog user died but the guide dog survived as she was left on the platform.

There are textured Braille tiles on many streets and most train stations in Japan installed for the visually impaired. It is often used by long cane users, but there are no clear principles in utilizing them for guide dog mobility at Japan Guide Dog Association. We want to take advantage of Braille tiles on the platforms of train station to improve safety of guide dog mobility.

We have been unable to incorporate Braille tiles into guide dog mobility because we train our dogs to walk on the left side of the road and pavement, due to the environment where shared-roads are common everywhere. Since Braille tiles are not always installed on the left side of the road, there is an inconsistency for guide dog mobility.

Preparation: Questionnaire to 18 guide dog trainers, survey of past studies, research on current Braille tile installation according to JIS (Japan Industrial Standard).

Hypothesis: We assumed that we could train our dogs to find Braille tiles from the result of question-naire and past studies. However, due to irregularity of Braille tile installation in town, it is not very useful for guide dog users. But in platform of train stations, they are installed almost in similar order. If we could train

our dogs to walk alongside Braille tile on the platform, it should minimize the risks.

Method: I trained six dogs in training to find, stop and walk along the Braille tile. In Japanese, we call them, "Braille Block", so we decided the direction to be "block."

Result: four out of six dogs achieved the task to find the tiles and follow them, while the handler was under blindfold at familiar area. Two dogs were transferred to other training center before they completed their training on tiles.

Outlook: we train our dogs to walk on the left side shoreline. However, we found out that we can train our

dogs to find the Braille tiles and walk along them in open space where the tiles are installed. Given that the user knows the installation pattern of the Braille tiles at the platform in train stations or shared public open space, the user could give guide dog the direction, "block" to find the tiles, and walk along them. We believe that such ways would contribute to the improvement of safety and comfort of guide dog mobility for our clients.

### Leader Dog educating into the future and beyond!

Workshop

Sebastian McPherson (David Locklin david.locklin@leaderdog.org)

Leader Dogs for the Blind, USA







Figure 1: Leadership team member emojis.



Figure 2: Screenshot example of one of the module pages.

Leader Dog recognizes that our current and future apprentice GDMIs require a different approach to their educational needs. We have embarked on an e-Learning project with Yukon group who are a specialized web-based e-learning designer.

We have 18 educational modules (such as, matching a guide dog to a client) that have been transferred to this new educational model. The modules require the learner to listen, interact, observe videos, and answer a quiz at the end. Each module is 30 to 45 minutes long, to keep the learner engaged and interested. Throughout the modules, leadership team member emoji's "pop up" with words of wisdom or advice!

### Developing travel skills for Guide Dog mobility – the GDB O&M immersion

Workshop Marc Gillard (mgillard@guidedogs.com) Guide Dogs for the Blind, Inc., USA

More than 1,100 people apply for Guide Dogs for the Blind each year. Of those deemed not ready for a guide dog, the primary reason is a lack of prerequisite orientation and mobility skills. In 2017, over 25% of all applicant denials were due to a lack of O&M skills and this percentage has been consistent dating back to at least 2014. However, in many cases a lack of O&M skills is only symptomatic of the true cause, that being an inability to access O&M services in the first place.

Anecdotal accounts from many applicants suggest that attempting to secure O&M services is a frustrating experience. Further, while one may be able to obtain services this does not necessarily translate to receiving the type and amount of instruction required to be ready for guide dog mobility training. This situation presents a concerning situation for blind and visually impaired people and for guide dog organizations dependent upon a steady stream of qualified applicants.

In 2016, GDB launched a pilot "O&M Immersion" program which became a permanent and expanded service in 2017. Taking place over six days with one to one training, it focuses on developing O&M skills particularly important for guide dog mobility. In order to deliver the program, GDB has formed a partnership with the Lighthouse for the blind and visually impaired in San Francisco.

The majority of GDB's population of 2,200+ graduates has residual vision with 26% having retinitis pigmentosa. A deterioration in vision effects confidence, independent travel abilities, and perhaps a graduate's ability to

qualify for a successor guide dog. Making it possible for these graduates to attend the O&M immersion alongside first time applicants is also an important objective.

The presentation will include the background to the GDB O&M immersion, the practical content, training of O&M specialists, and the infrastructure needed to support students and staff. Feedback and outcomes will be presented along with future goals.

### Technology: delivering client management solutions

Workshop

Matt Drury (Matt.Drury@guidedogs.ca)
Canadian Guide Dogs for the Blind (CGDB), Canada

CGDB is offering small- to medium-sized organizations a user-friendly client management application that can be easily adopted, providing supporting documentation and remote support to ensure a successful implementation. The only requirement for the organization is to ensure they have Microsoft Office (including Access) Access, a software suite program that is reasonably priced. With Access, we have developed an easy-to-use Graphical User Interface (GUI) to manage, organize, and report on client data.

With this offered solution, the client services department in different organizations can benefit from various functions that are available, which include:

- administrator functionality to maintain user accounts and manage tracking data;
- controlling account access through establishing user accounts that access an easy user log-on interface;
- maintaining existing client information with a user-friendly GUI;
- adding new client records;
- generating reports based on various criteria;
- reviewing client documentation using an easy-access button;
- accessing communication logs using an easy-access button;
- advanced search function to retrieve and display a client file quickly;
- e-mail functionality utilizing Microsoft Outlook to simply transfer documents for review to a supervisor;
- retiring dog functionality to transfer relevant dog data for reporting purposes; and
- tracking functionality to log what updates were completed for a client.

Organizations that use Microsoft Excel to track client information can use the import function in Access with ease to import their existing data into the application and take advantage of remote support and supporting documentation in the event that issues occur.

Prior to the go-live of the application at CGDB, all client data were previously managed using hard copy documents stored in various filing cabinets in addition to maintaining an Excel spreadsheet to track client information. In efforts to modernize client services processes, we have converted all hard copy documents for each client electronically and imported the Excel data into Microsoft Access to deliver a client management solution that improves client services processes using technology. Overall, the application has greatly improved the effectiveness and efficiency of client processes that incorporate client data at CGDB.

From using the application extensively over the past few years, we have continuously improved the tool to meet organizational requirements and are proud to offer this solution to the various organizations. The workshop session will be divided with a Power-Point presentation overviewing the application and a demonstration in Microsoft Access to showcase for the functionality that the application can provide to the various organizations.

2018 IGDF Seminar (Sydney, Australia) Presentation Submission

## IGDF in action: two schools, two countries collaborating for a positive goal - R+ in the guide dog industry

Workshop

Todd Jurek¹ (tjurek@guidedogs.com) and Ami Toren² (ami@igdcb.org)

<sup>1</sup>Guide Dogs for the Blind, Inc., USA <sup>2</sup>Israel Guide Dog Center for the Blind

For over 50 years Guide Dogs for the Blind (GDB) in San Rafael, California trained its dogs using traditional methods. In 2007, GDB adopted a positive training philosophy and has successfully applied positive reinforcement techniques and clicker training for more than 10 years.

A number of guide dog schools approached GDB with the desire to learn more about the positive training philosophy and how it could be applied to their program. GDB disseminated information about

positive training through International Guide Dog Federation (IGDF) conferences as well as developed its own multi-day clicker seminar/workshops, which are open to all guide dog schools worldwide. The Israel Guide Dog Center for the Blind (IGDCB) was one of the schools interested in learning more about these techniques.

GDB and IGDCB developed a strong partnership over many years and at the 2008 IGDF conference, Rafi Taglicht of IGDCB attended a clicker workshop presented by GDB and approached the speaker after the session asking if IGDCB could send a guide dog mobility instructor to GDB to learn the "secrets" of R+training.

In 2009, IGDCB sent instructor Ami Toren to GDB for a two-month internship training on R+ theory and practical learning. After Mr Toren's hands-on experience, he attended the first GDB international clicker workshop. In 2011, GDB sent Master Guide Dog Mobility Instructor Todd Jurek to IGDCB to continue the collaboration and education with their staff. In 2015, IGDCB sent an apprentice instructor to GDB for five months. The instructor joined two training strings, allowing him to learn the positive techniques through extensive hands-on experience.

Sharing knowledge was tremendously valuable to the individuals and the schools involved. GDB and IGDCB appreciate the importance and value of sharing best practices within the guide dog school community. The IGDF conference is the ideal place to highlight the power of partnership between schools which can result in valuable growth and knowledge. We all exist to serve our clients and provide the best service. Collaboration is a powerful way to share best practices and improve services for all individuals with visual impairments, no matter where they live in the world.

## Unconventional dog food: fact or fiction and the risks for public health

Workshop

Bob Proesmans (drsbob@yahoo.com)
International Guide Dog Federation's Development
Committee, Belgium

Feeding unconventional diets to dogs has become increasingly popular. Since some of these diets, like raw meat-based diets (RMBDs) may be contaminated with bacteria and parasites, they may pose a risk to both animal and human health.

In recent years, it has become increasingly popular for dog owners to feed their pets unconventional diets, both commercial or home prepared, instead of the more conventional dry or canned pet foods. The Bones and Raw Food or Biologically Appropriate Raw Food (BARF) diet is probably the most popular example of a home-prepared unconventional diet.

Owners have several motivations for feeding unconventional diets to their pets. However, the claimed health benefits attributed to the feeding of unconventional diets are mostly anecdotal, and no studies have produced results in support of these statements. On the contrary, several publications have reported risks associated with some unconventional diets, especially RMBD feeding, including the development of clinical conditions such as hyperthyroidism, and injuries such as gastrointestinal tract perforation or teeth fractures.

In nutritional terms, these diets are often deficient in several nutrients and may, therefore, lead to serious health problems, especially in young animals that are growing. Dogs can no longer be compared with wolves, and evolution and domestication is responsible for a shift from being carnivores to omnivores.

The presentation will, therefore, also provide evidence-based information on what dog food should contain, commercial or home prepared. The analytical reading of a label is also highlighted.

However, the topic most discussed at present is the risk to public or animal health because of possible contamination of RMBDs with – zoonotic – bacteria and parasites. The spread of such bacteria and parasites in the environment, either directly from contaminated RMBDs or by animals infected through consumption of RMBDs, represents a risk for the human population.

As the guide dog community promotes free access for guide dog users to places where dogs are usually not allowed, we should also be aware of the risks mentioned above, and foresee any objection from the general public that could lead to limit this justified access.

## The Positive Paws Project: an early enrichment and development program for puppies, in partnership with local schools

Workshop

Paul Adrian¹ (padrian@guidedogs.com.au), Brenda Calkin¹ (bcalkin@guidedogs.com.au); Jenny Linklater² (jenny.linklater@det.nsw.edu.au)

<sup>1</sup>Guide Dogs NSW/ACT

<sup>2</sup>Hawkesbury High School, Australia

Early neurological stimulation and enrichment has proven benefit to puppies in guide and service dog programs.

Challenges are often experienced by organizations in maintaining sufficiently large staff numbers to provide these activities with puppies in a kennel environment.

Guide Dogs NSW/ACT have piloted a program in partnership with local schools to engage children in a formalized early development program for puppies in our facility.

The Positive Paws Project provides early neurological stimulation and enrichment to puppies up until seven weeks of age.

The program also provides a range of educational opportunities for the children and aligns with a number of curriculum outcomes.

The presentation offers insight into the program activities, shares detail of the associated lesson plans and discusses the perceived benefits to puppies and volunteer puppy raisers. Also discussed are the surprising outcomes for the schools and individual children participating in the program.

### Improving guide dog performance through large scale, collaborative genomic research

Keynote Presentation

Elinor K. Karlsson (elinor.karlsson@umassmed.edu) University of Massachusetts Medical School; Vertebrate Genomics, Broad Institute of MIT and Harvard University, USA

Working dogs fill critical roles in an expanding range of fields, and while demand is growing, their availability is limited. An opportunity exists for the new field of genomics to help produce more successful guide dogs. Genomics is the study of the complete set of DNA each animal inherits from their parents, including all 20,000 genes. The Working Dog Project is a new, highly collaborative initiative that is following the powerful open science model pioneered by the human genetics community. Its goal is to apply new genomic technology to help solve a central challenge: accurate prediction at an early age of potential for successful training.

Right now, the genomic study of dog behavior is off to a slow start. The complex behaviors needed to succeed as a working dog are likely shaped by thousands of genes interacting with each other. Yet, currently, only a handful of genes have been linked to canine behavior, and there are no useful genetic tests for behavioral traits.

By partnering with working dog organizations, including members of the International Guide Dog Federation, to include thousands of dogs in this effort, we can identify the genetic differences associated with behaviors important to guide dog success. Organizations wishing to collaborate can add their Behavior Checklist and other behavior data to a common database and provide DNA on their dogs. We are combining the behavioral data and genomic data from guide dogs, and other working dogs, to build an unparalleled resource for genetic research that includes tens of thousands of working dogs.

I will present early results from the Working Dog Project, and describe our next steps. We welcome interested members of IGDF to collaborate with us to help advance genomics research. The results of our work will be openly available.

A short-term benefit is that once genomic associations are made, the genomic data can be used to increase the accuracy of estimated breeding values (EBVs). In the long term, it should be possible to analyze DNA samples from puppies to determine if they are likely to be successful guide dogs. Our collaborative approach and shared data resource will enable even groups with smaller numbers of dogs to access cutting edge genomic technology.

### Let's get positive: positive reinforcement techniques for medical and husbandry procedures

Workshop Heather Power (hpower@guidedogs.com) Guide Dogs for the Blind, Inc., USA

Quality medical care and husbandry practices are essential parts of any service dog organization; however, the procedures that need to be performed in a veterinary setting can be stressful, uncomfortable or even painful to the canine patient. At Guide Dogs for the Blind, positive reinforcement techniques are applied in the clinic and breeding laboratory to help dogs that are reluctant to accept treatment relax and become willing participants in their own care.

The procedures and treatments that keep our dogs healthy can lead to unnecessary stress to the dog, the client, the GDMI, and the veterinary staff. How can we teach our dogs to accept routine veterinary care?

Attendees will learn about:

- evaluating a patient's needs and the environmental factors that contribute to increased stress;
- identifying procedures that are common issues for our dogs;
- incorporating a variety of behavior modification techniques;
- applying these techniques in a clinic setting;
- developing plans of action based upon the dog and client needs:
- record keeping to ensure consistent handling; and
- sharing positive reinforcement techniques with clients to increase compliance and support the relationship the dog and the human partner.

Positive reinforcement is known to be a powerful tool that acts as a mode of communication, and is a successful way to develop trust between the human staff or client and the canine patient.

## The breeding and nurturing of a legacy donor – building donor relationships for giving through wills and bequests

Workshop
Sue Dishart (sdishart@guidedogs.com)
Guide Dogs for the Blind, Inc., USA

Worldwide charitable giving competition (promoted by digital marketing and growing communications) continue to dilute the pool of support through bequest gifts. People have more and more information on ways to give through estate giving and the offerings are not just to their local church or university but can reach to causes with global impact. The number of registered public charities in the USA alone has increased almost 20% in the past 10 years. While a majority of the charities rely on fees and government funding to support their income, the general public has more outreach for their charitable dollars than ever. The "Baby Boomers" are aging and by 2020 the largest population of people in the United States will be in prime planned giving marketing age groups, international demographics are following the trend as well.

Laws and accounting practices will vary by country to country, but the biggest reason people give lies in their hearts. By understanding the characteristics of a donor who wants to leave their legacy gifts to support the mission of guide dogs, you can build a marketing plan to steward and nurture the relationships of those people. By the end of this workshop, participants will be fueled to start or expand their legacy program with

ways to mine an existing donor database for planned giving prospects, marketing tools that will work within any budget, community people and resources for expanding your estate planning marketing toolbox and real stories that can shared about the importance of working beyond this year's planning to secure a future for your organization:

- http://www.urban.org/research/publication/ nonprofit-sector-brief-2015-public-charities-giving-and-volunteering
- 2. https://www.census.gov/popclock/world
- 3. Additional cited resources in presentation:

https://plannedgiving.com/downloads/fd\_donorcharactertable.pdf

https://www.nptrust.org/philanthropic-resourc-es/charitable-giving-statistics

https://www.theguardian.com/voluntary-sector-network/2015/mar/23/the-science-behind-why-people-give-money-to-charity

### CorC – Cane or Canine [...] is a guide dog right for me?

Workshop Vicki de Silva and Marita Baker Guide Dogs Victoria, Australia

The decision, for anyone considering whether they would like to take the step toward having a guide dog, can be both daunting and exciting.

The introduction of the National Disability Insurance Scheme (NDIS) in Australia, like many other "individualized funding" models around the world is changing the way in which services can be delivered and, in line with NDIS criterion, the step toward having a guide dog must be seen as "reasonable and necessary" in order to receive the available funding.

The question should be asked, therefore, "Would a cane be more appropriate for me?"

There is a great deal of information available to someone looking for an answer to the question of "cane or canine" – a simple search on Google, asking "Is a guide dog right for me?", brings up around 28.5 million articles.

Many of these are based upon personal experiences which can be, understandably, specific to the individual author and, often, contradictory to many others.

To ease the confusion at what is usually a difficult time for the client, a qualified professional (Orientation and Mobility Specialist or Guide Dog Mobility Instructor) can work with the individual and, together, they can determine the most appropriate mobility tool(s) that will best enable safe and effective independence.

Guide Dogs Victoria (GDV) values the need to ensure individuals are very aware of the benefits of both the cane and the dog, as this leads to increased confidence and successful outcomes for the individual. To do this, GDV invites individuals to participate in a group program titled CorC.

CorC provides opportunity for the individual to experience working with both a guide dog and a cane, also allowing time to explore different mobility aids (e.g. technology) in conjunction with a primary mobility aid. CorC assists the individual and extended unit (e.g. family) in making an informed decision about their preferred, and most beneficial, mobility aid – for now and for the future.

CorC also provides opportunity for the practitioner(s) to gain invaluable evidence as to why one mobility aid is more highly recommended over another for the individual client – leading to the development of a more effective individualized training program.

The group setting encourages sharing of questions and experiences with others who may have similar concerns.

#### Workshop aims:

- to explain the development of the CorC program in GDV;
- to share the outcomes of the program to date; and
- to provide opportunity for attendees to share their own thoughts/experiences and, also, to discuss similar models and methods of ensuring that a guide dog is, indeed, right for the individual client.

### The canine gut microbiome and its impact on the health and behavior of the dog

Workshop

Caroline Moeser (cmoeser@guidedogs.com.au) Guide Dogs NSW/ACT, Australia

In the past, the importance of resident microbiota of the gastrointestinal tract has been underestimated. Research over the past few years has developed our understanding about how every animal has a unique and stable microbial ecosystem and imbalances of the gut microbiome impacts not only health but also behavior in many species. The Human Microbiome Project was a metagenomic project that used large scale data analysis to characterize and identify the microorganisms of the gastrointestinal tract of normal and diseased humans. The results of this project have become the basis for research both in human and animal medicine.

Based on these studies, colonization of the microbiota occurs predominantly in utero and prior to birth. Thus, research into ensuring a balanced pre- and post-natal microbiome through identification and understanding of the cause and effect of commensal imbalances has led to the thought process that modifying these microbial communities in diseased animals and promoting a healthy microbiome in healthy hosts may have beneficial effects. This has led to the trialing of proposed therapeutic agents within our breeding and puppy colonies at Guide

Dogs NSW/ACT and we have experienced very positive results.

Additionally, research has extended beyond the scope of the role that the microbiome plays in the development of clinical disease and the functionality of the immune system; to the complex interplay between the gut and the central nervous system. The interaction between the gastrointestinal microbiome and the CNS has been described as a bidirectional pathway associated with alterations in the stress response and behavior of both animals and humans. This pathway has been named the gut-brain axis and studies are now focused on how this interplay can be the basis of novel treatments for a wide variety of conditions.

This presentation will focus on those studies that have been the basis of our change in processes, the new protocols and the results of our changes.