



International Dog Health Resources – The Dog Wellness Network

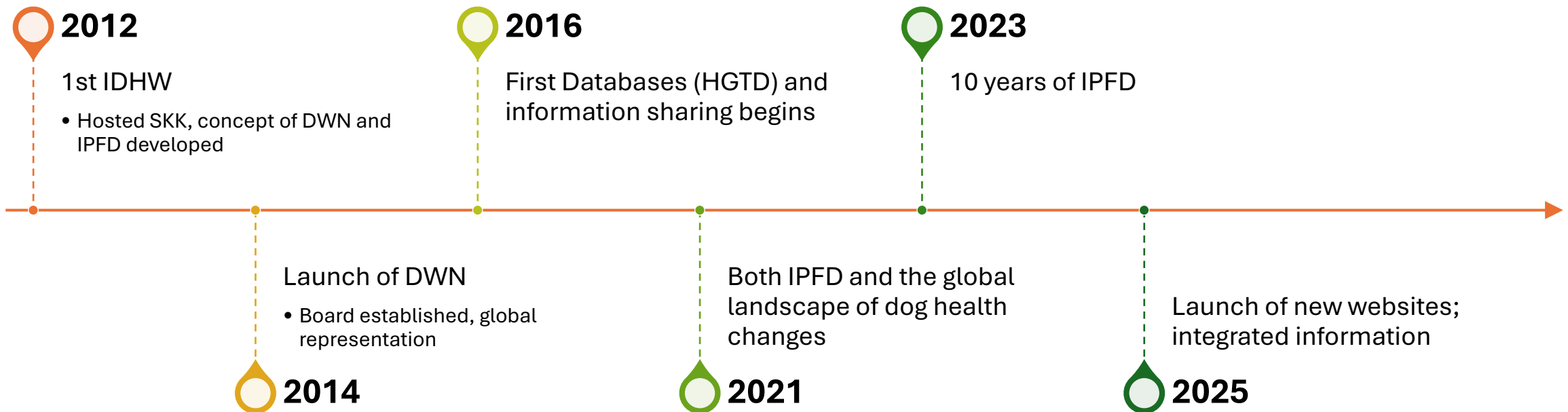
Aimée Llewellyn-Zaidi; 6th International Dog Health Workshop 2026



Today's Talk

- All Roads Lead to Dog Health
 - Shared Solutions to Shared Challenges
 - Resource Development and Information Sharing – efficiency in uncertain times
 - The Road Ahead
- 

All Roads Lead to Dog Health



Shared solutions to shared challenges

- IPFD was created to meet the needs of the dog health community – Kennel Clubs, researchers, veterinary scientists, advocates, welfare...
- Workstream directly reflects the ideas, priorities, and funding provided by the community...
- Global changes to dog breeding and ownership – key will be closer connectivity and efficiency





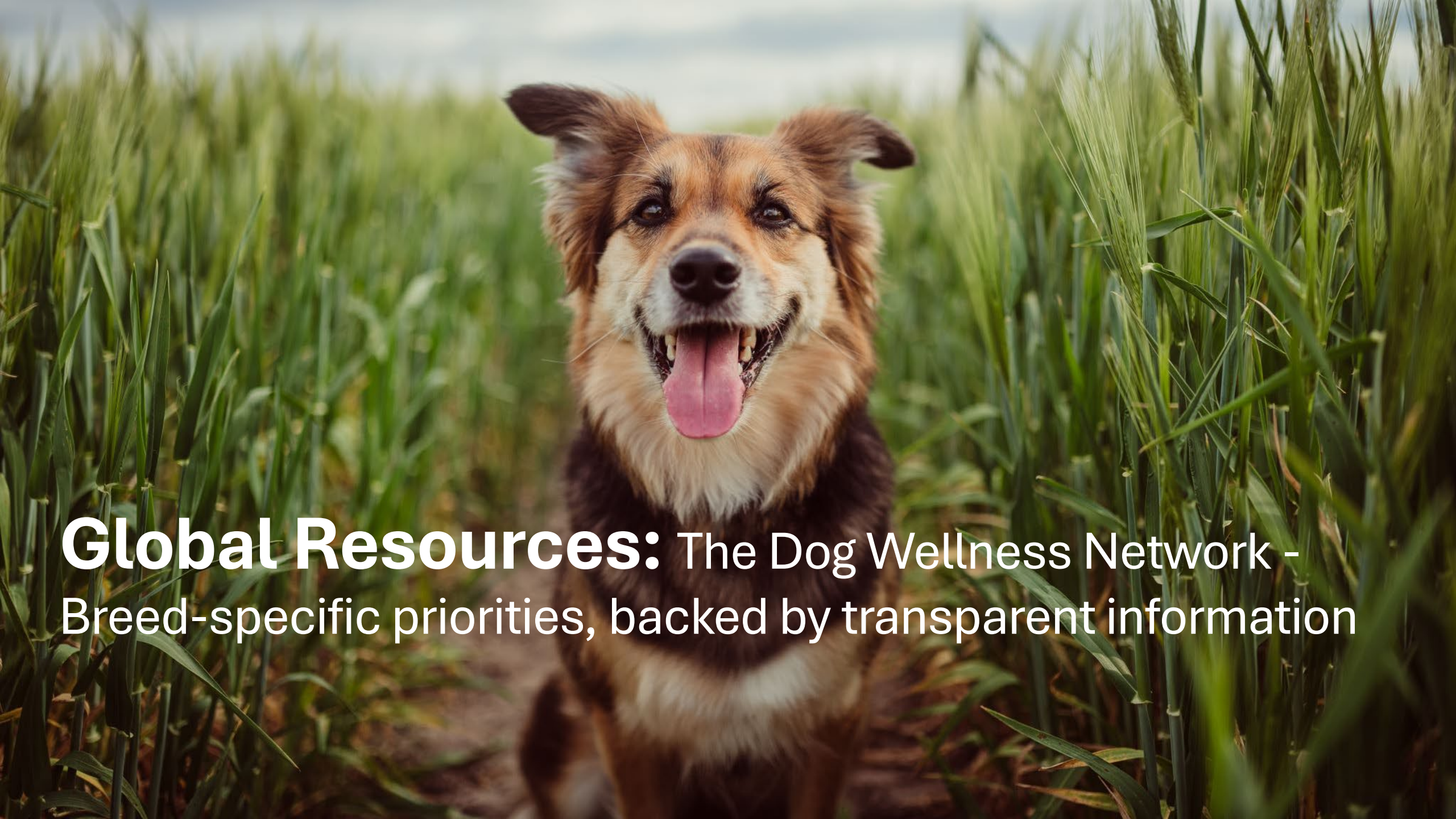
Resource *Development* - IPFD

- Integrated resource by breed/dog type: HGTD, Pedigree Dog Database, HSDD, Agria Data, peer-reviewed research, Kennel and Breed Club projects...
- Community space: virtual and in-person
- In-house expertise, and network of global experts – YOU!
- Community outreach and research: Global perceptions of genetic test usage



Resource *Usage* - IPFD

- Breed-specific information on global health and genetic testing – country-specific priorities?
 - 100-400+ attendees on virtual meetings, workshops, and education programs
 - Global small groups: Genetic Diversity, Pedigree-genetic ID, advisory work on GT integration in KCs
 - Looking? Sharing? Reach? 1400+ responses to recent survey
- 

A medium-sized dog with brown, tan, and white fur is sitting in a field of tall green grass. The dog is looking directly at the camera with its mouth open and tongue hanging out, appearing happy. The background is a soft-focus field of similar grass under a cloudy sky.

Global Resources: The Dog Wellness Network -
Breed-specific priorities, backed by transparent information

Breed-specific: characteristics, history and origins, international breed standards, international health programs and genetic testing, original research...

Golden Retriever

Kultainennoutaja

A medium-to-large gundog developed in Scotland in the 19th century.



FCI GroupRetrievers - Flushing Dogs - Water Dogs

AKC GroupSporting

TKC GroupGundog

Country of OriginGB

Brief Description

Golden Retrievers are friendly, intelligent, and confident dogs with excellent natural working ability. The breed excels as hunting companions, family dogs, and in various working roles including service, therapy, and search-and-rescue work.

Health: Most important health concerns include cancer as well as orthopedic, ophthalmologic, cardiac (subvalvular aortic stenosis), and dermatologic conditions. Other health concerns include hypothyroidism and epilepsy.

Behaviour and Well-being: Golden Retrievers generally have excellent temperaments with few breed-specific behavioral problems. However, potential concerns include:

- High exercise requirements - needs substantial daily physical activity and mental stimulation.
- Separation anxiety - strong bonding can lead to distress when left alone.
- Puppy exuberance - can be overly enthusiastic and boisterous, especially during the first 2-3 years of life.
- Inappropriate aggression or fearfulness - considered unacceptable and atypical for the breed.

Get a GRIHPI: Comprehensive information on the breed's health can be found in the Get a GRIHPI on the Golden Retriever article (to be added soon).

Breed Standards

The basis of breed/conformation shows is the judging of pedigree dogs against the 'Breed Standard', which is a picture in words that describes the range of features that are deemed appropriate for the breed.

Three of the major international standards are:

- The Royal Kennel Club_UK
- FCI (Fédération Cynologique Internationale)
- The American Kennel Club

Health Testing Requirements by Country

Skeletal and Muscular Required US	Eye Conditions and Blindness Recommended US	Genetic Material and Diversity Required + FI	Skin, Hair, and Nails Recommended SE	Other Genetic Testing Required SE
Autoimmune and Allergies Recommended + FI	Cardiac and Circulatory Recommended + FI	Endocrine and Pancreas Recommended + FI	Ataxia, Locomotor, and Epilepsy Recommended + FI	Neurological and Neuromuscular Recommended + FI
Cancer and Neoplasia Recommended + FI	Other Breed-Specific Considerations Unknown + FI	Renal and Urinary Unknown + FI	Temperament Recommended SE	Reproductive Recommended UK

Test Relevances

4 Ichthyosis, PNPLA1-related Moderate Relevance	3 Degenerative Myelopathy Some Relevance	3 Dystrophic Epidermolysis Bullosa Some Relevance	3 Muscular Dystrophy Some Relevance	3 Muscular Dystrophy (Duchenne-type, DMD) GRMD Some Relevance
3 Neuronal Ceroid Lipofuscinosis 5 (NCL5) Some Relevance	3 Neuropathy, Sensory Ataxic Some Relevance	3 Osteogenesis Imperfecta COL1A Some Relevance	3 Progressive Retinal Atrophy (PRA-prcd) Some Relevance	3 Progressive Retinal Atrophy, GR PRA2 Some Relevance
3 Progressive Retinal Atrophy, PRA1 Some Relevance	3 Von Willebrand Disease I Some Relevance	2 Coat Colour Dilution, dilution, MLPH-related No Evidence	2 Congenital Myasthenic Syndrome - COLQ No Evidence	0 Congenital Myasthenic Syndrome - CHRNE related Not Recommended

Connections

Degenerative Myelopathy Condition - Neurological and Neuromuscular	Neuropathy, Sensory Ataxic Condition	Osteogenesis imperfecta, type III, COL1A1-related Condition	Progressive Retinal Atrophy (PRA-prcd) Condition - Eye Conditions and Blindness	Progressive Retinal Atrophy, GR PRA2 Condition - Eye Conditions and Blindness
Progressive Retinal Atrophy, PRA1 Condition	Dystrophic Epidermolysis Bullosa Condition - Skin, Hair, and Nails	Ectodermal Dysplasia Condition	Eye malformation, congenital Condition	Ichthyosis, PNPLA1-related Condition
Muscular Dystrophy (Duchenne-type, DMD) GRMD Condition	Neuronal Ceroid Lipofuscinosis 5 (NCL5) Condition	Golden Retriever Veterinary Care - Agria Breed Profiles Reference - Data	Golden Retriever LIFE - Agria Breed Profiles Reference - Data	

Detailed specific information on diseases, including a searchable research library...

is - DogV

Ask Ge

etic-test-references/?sortby=ref_updated&sortdirection=desc

Home > References > Academic > Genetic Test References

Aimee Llewellyn-Zal

Genetic Test References

Peer-reviewed papers identifying the original phene variant. Includes breed-specific references associated with genetic tests and variants.

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SORT BY ▾



EHBP1L1 Frameshift Deletion in English Springer Spaniel Dogs with Dyserythropoietic Anemia and Myopathy Syndrome (DAMS) or Neonatal Losses.
First peer-reviewed publication of the causal variant.



A Multi-Breed Genome-Wide Association Analysis for Canine Hypothyroidism Identifies a Shared Major Risk Locus on CFA12.
First published description of the causal variant.



CNS hypomyelination in Rat Terrier dogs with congenital goiter and a mutation in the thyroid peroxidase gene.
First published description of the causal variant.



Congenital hypothyroidism with goiter in toy fox terriers
First published description of the causal variant.



[Clinical, hematological, biochemical and endocrinological aspects of 32 dogs with hypothyroidism]
First published description of the causal variant.



Degenerative Encephalopathy in Nova Scotia Duck Tolling Retrievers Presenting with a Rapid Eye Movement Sleep Behavior Disorder.
First published description of the causal variant.



Sensory ataxic neuropathy in golden retriever dogs is caused by a deletion in the mitochondrial tRNA^{Tyr} gene.
First published description of the causal variant.



Mutations in the SLC2A9 gene cause hyperuricosuria and hyperuricemia in the dog.
First published description of the causal variant.



An ADAMTSL2 founder mutation causes Musladin-Lueke Syndrome, a heritable disorder of beagle dogs, featuring stiff skin and joint contractures.
First published description of the causal variant.



Three diverse mutations underlying canine xanthine urolithiasis.
First published description of the causal variant.











Home > Health > Eye Conditions and Blindness > Progressive Retinal Atrophy (PRA-prcd)

Aimee Llewellyn-Zal

Progressive Retinal Atrophy (PRA-prcd)

PRA-prcd is progressive, and late-onset, where retina cells are lost slowly. This initially causes problems seeing in dim light, usually around ages 3-5, though diagnosis by an ophthalmologist can be earlier, around 1-2 years. It can progress to complete blindness in some dogs, but not all cases. This disease is seen in many breeds and crosses.

Discussion

Key Comment: Multiple research sources indicate that this form of PRA-prcd could be present in many breeds, and testing could be relevant widely across a large number of different breeds of dog, many of which are terriers or breeds with terrier co-ancestry, but some of which have more diverse origins. Research indicates that the mutation is present at varying breed-specific frequency, but that testing and applying the test results can lead to significant reduction in the disease.

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Canine progressive rod-cone degeneration (prcd) is a retinal disease previously mapped to a broad, gene-rich centromeric region of canine chromosome 9. An allelic disorders present in multiple breeds, and crosses of those breeds. Research strongly suggests that a common ancestor transmitted the prcd disease allele to many of the modern dog breeds. Diagnosis of prcd is based on a combination of clinical examination, including indirect ophthalmoscopy and electroretinography, and retinal morphology. Retinal photoreceptor abnormalities are visible in animals 14 weeks of age and older using high-resolution optical microscopy.

Genetics

Inheritance	AR
OMIA	001298
OMIA Variant	000076
OMIA URL	https://omia.org/OMIA001298/9615/
OMIN	610599
Gene	PRCD
Variants	c.5G>A, G1298A, c.2685delA, c.2687,2688insTAGCTA
Variants Comments	Test has been reported as being offered as a linkage/marker test, from some GTPs

Testing

Test Types	Genetic-Genomic Ophthal
Assessments	Eye / Ophthalmologist Exam Specific Genetic Test
Assays	Linkage Direct Mutation

Connections

Identical mutation in a novel retinal gene causes progressive rod-cone degeneration in dogs and retinitis pigmentosa in humans.
Reference - Journal Article

Updated September 29, 2025

Add Condition

Edit Condition



Global Information: Genetic Testing Survey



- Distributed Oct-Dec 2025
- 1501 responses, 731 answered all questions; 6 continents from Australia to Zambia.
- ~58% report having tested **all** dogs they currently own with at least one genetic test
- ~41% test **all** dogs they use for breeding
- ~6% have **never** used a genetic test
- A small group (~11%) tested in the past but no longer do
- Among breeders specifically, the vast majority ($\geq 85\%$) report some level of active testing, with only ~3% reporting never testing.

- **Motivation for testing:** Majority test for breeding decisions, health, or ethical convictions, closely followed by requirements/parentage/”technical” reasons
- **Initial Barriers:** cost, tests not useful, tests not available “for breed” or uncertain of utility
- **Discontinued testing:** cost, not breeding, no utility, doubts about relevance and accuracy
- **Conflicting perceptions:** lack of standardization across platforms, tests not relevant, high costs..... Vs.... Should be mandatory, wanting population-level data and “matchmaking” tools



**Global
Collaboration:**
Global Canine Data
Alliance

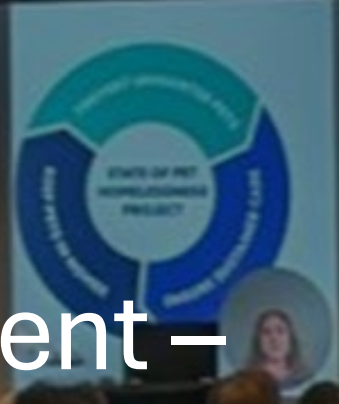
The background of the slide is a blurred photograph of a laboratory rack filled with numerous test tubes. Some tubes have orange caps, while others have purple caps. The tubes are arranged in rows, and the focus is soft, creating a professional and scientific atmosphere.

Connecting Health, Genomic, and Clinical Insights for Better Breeding and Research

- Over recent decades, large volumes of phenotypic and genomic data have been collected:
 - Health screening (Hips/elbows)
 - Pedigree; parentage
 - Clinical records
 - Morbidity and longevity
 - Genomic (SNP, WGS)
- This data represents millions of dollars of investment, but is often inaccessible for maximized usage by kennel clubs and researchers
- GCDA seeks to bridge these divides through collaboration, interoperability, and ethical data governance.

Resource Development – We are IPFD

- *IPFD is a service provider*
- We are shaped by IDHW and ultimately you, the dog community
- What do you want, and need?



The Road Ahead

- Breed-specific health and breeding information can support breeding strategy and policy
- Networking across international KC's shares challenges, responsibilities, and successes
- IDHWs foster collaboration and project development to benefit Kennel Clubs and dogs.
- Multi-stakeholder environment creates opportunities
- Global perspective can support local strategies: KCs, responsible dog acquisition/supply, R&D, education – breeders/owners





Thank you!
Questions?