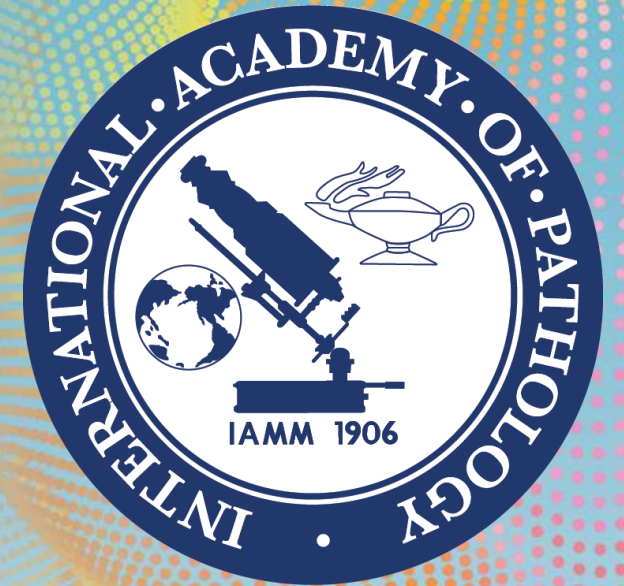


# Soft tissue Mass

John Slavin

St Vincent's Hospital Melbourne



The 48th Annual Scientific Meeting *of the*

Australasian Division of the  
International Academy of Pathology

# Disclosure of Relevant Financial Relationships

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No relevant financial interests

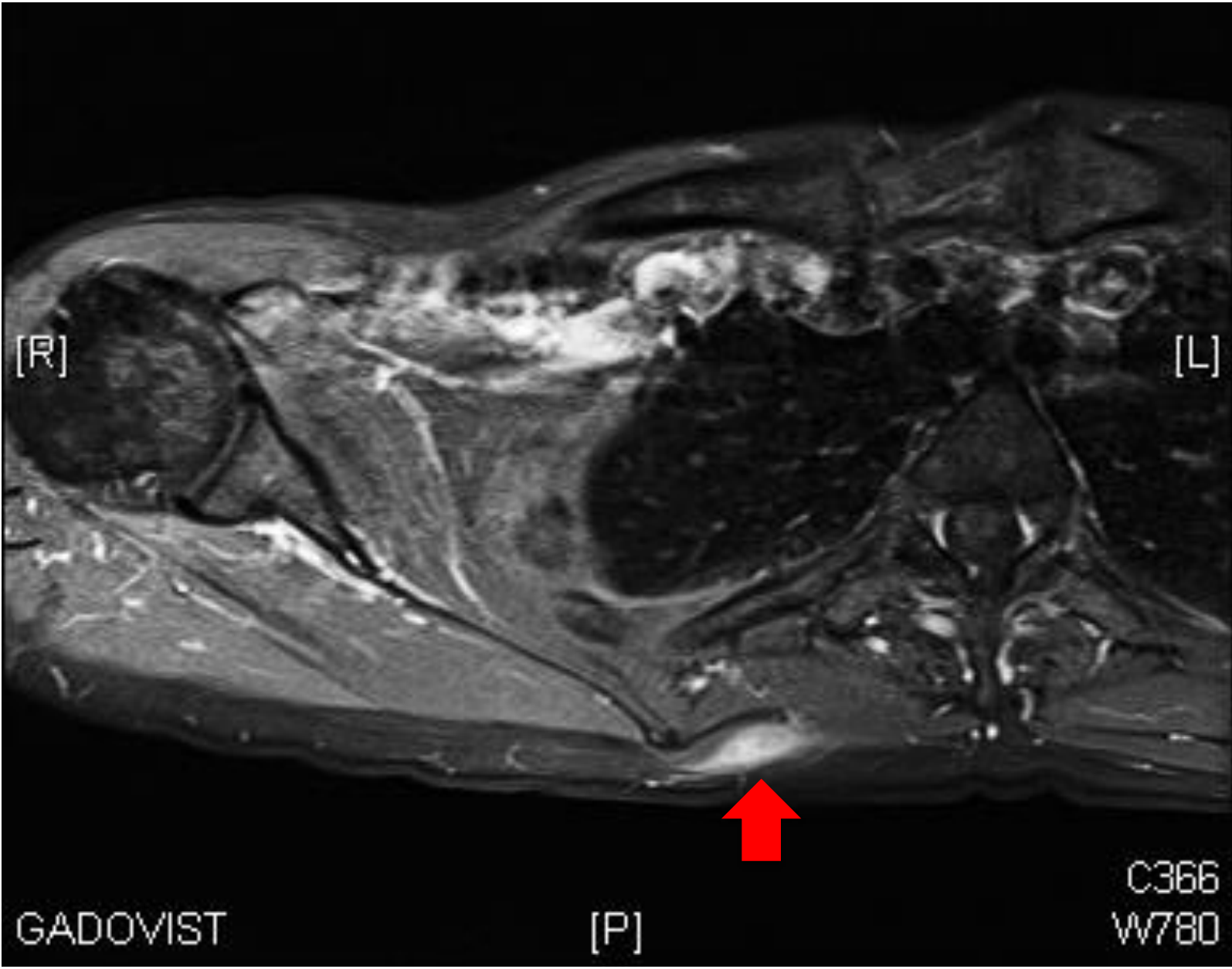
# 30 yr old Norwegian Veterinarian

Presented in 2017

3 weeks para-scapular mass

Mild irritation /burning over the mass

Imaging U/S, MRI, CT biopsy



# Images for identification

Orthopaedic consult to r/o sarcoma > radiology (US and MRI)

Radiologist's Impression:

Small **enhancing solid lesion** in the right parascapular region situated in the superficial muscle fibres of the right paraspinal musculature. Differential diagnoses include **peripheral nerve sheath tumour** and **small vascular malformation**-type lesion.

Core biopsy of lump taken

Histo-pathology



**Histopathology report:  
worm > ?fish tapeworm**



**On review of slide –  
cuticle was seen = nematode**

# Travel History

Africa – South Africa, Botswana, Tanzania, Kenya  
Morocco, Tunisia, Egypt

Europe – Portugal, Greece, Italy, Germany      UK

Cameroon – Had Malaria, remembers bites from small black flies  
2016

# Microbiology Dr Sheory e-Diagnosis Group

Nematode

Likely *Dirofilaria* or *Onchercerca*

# Onchocerca (River Blindness, craw craw)

Distribution- Sub-Saharan Africa, Yemen South America

Life Cycle person to person via blackflies(Simulium)

Skin nodules itchy dermatitis

Lymphadenitis

Eye Keratitis

No eosinophilia

Stool OCP

Thick Blood films x 3 -

Eye examination (RVEEH)

MRI brain and eyes

Additional imaging of limbs

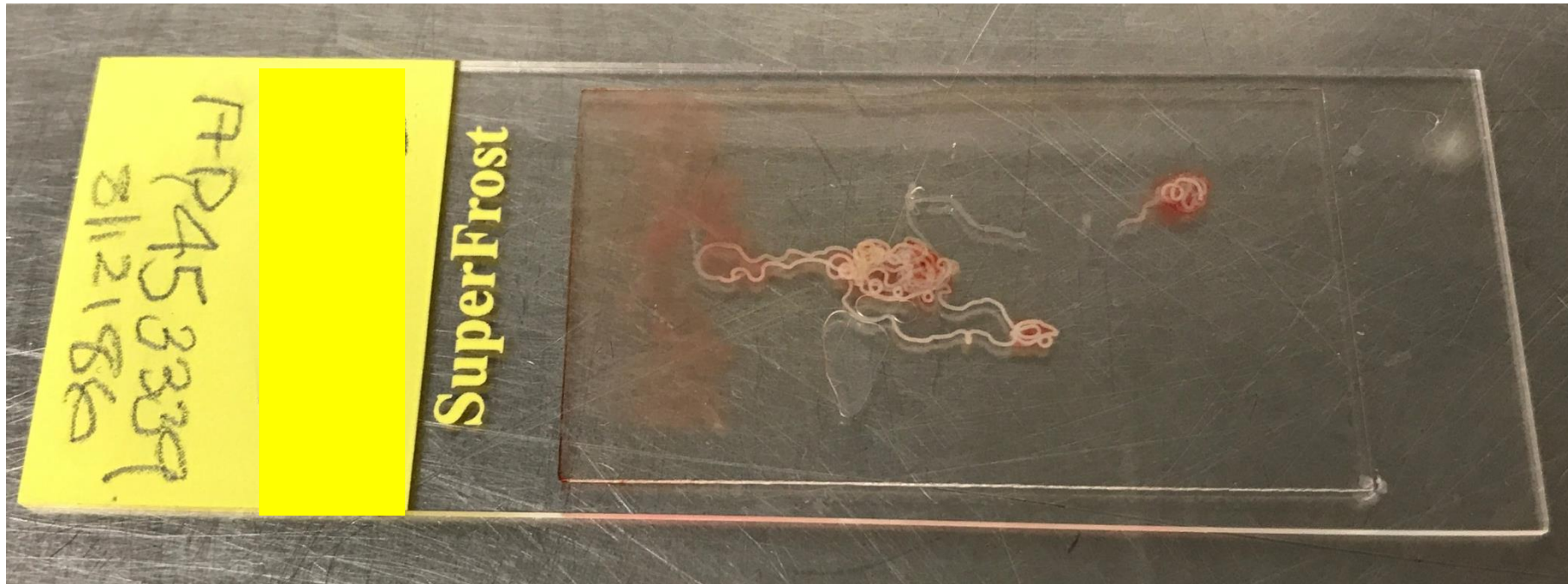
Excisional biopsy advised

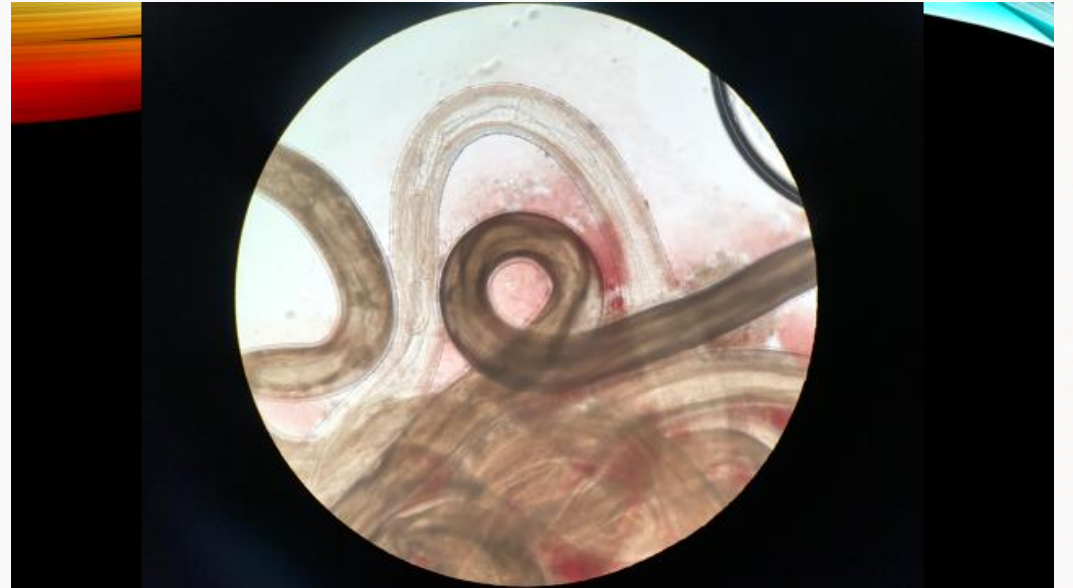
Unlikely to respond to anti-parasitic therapy

Allows to get fresh tissue for typing

Excised intact with pseudo-capsule, deep to fascia within muscle

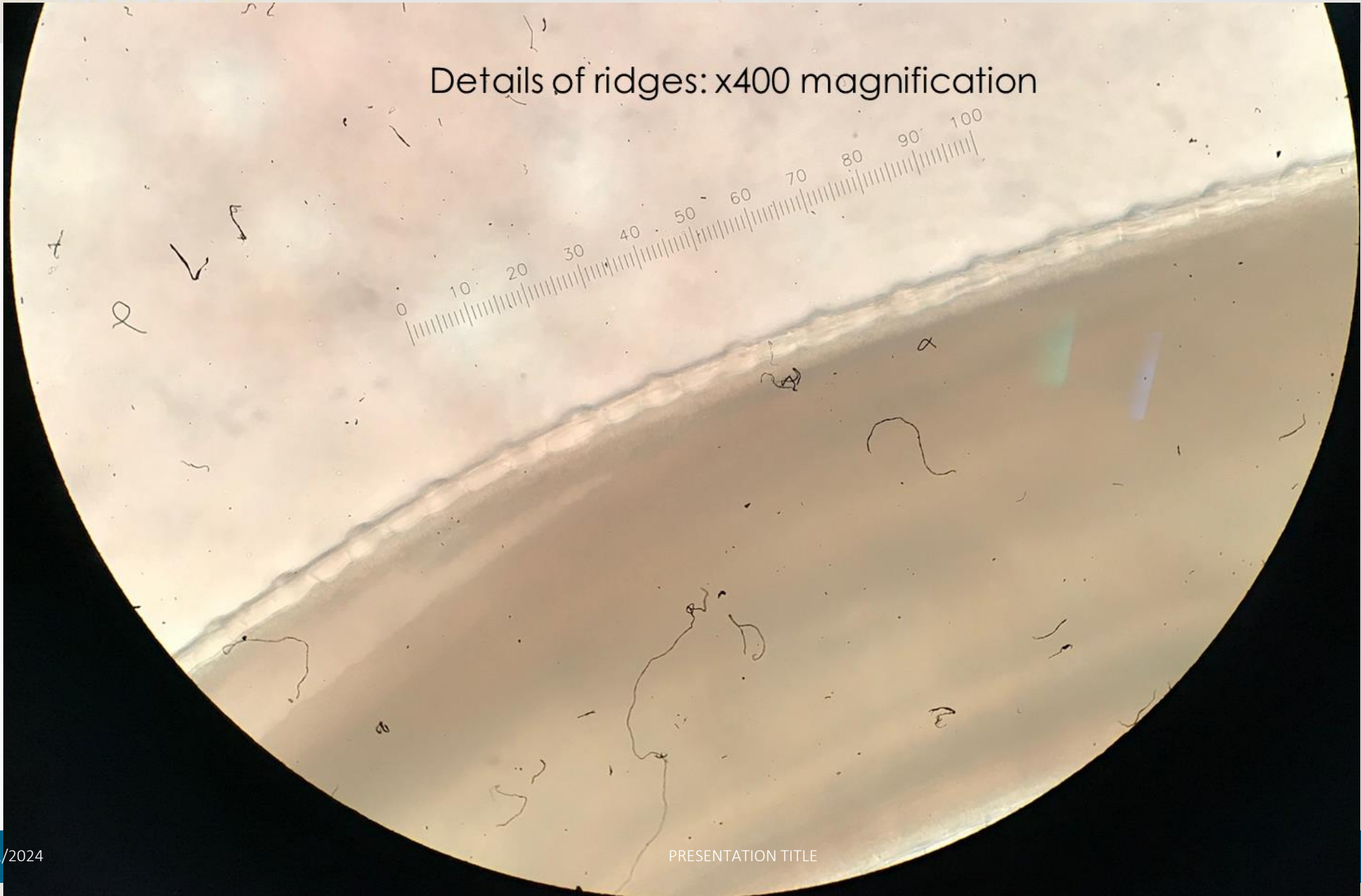
The worm(s) dropped out as the nodule was cut in half for histology. The worm is possibly cut and as it is coiled – difficult to know the length, and if single or multiple worms are present.





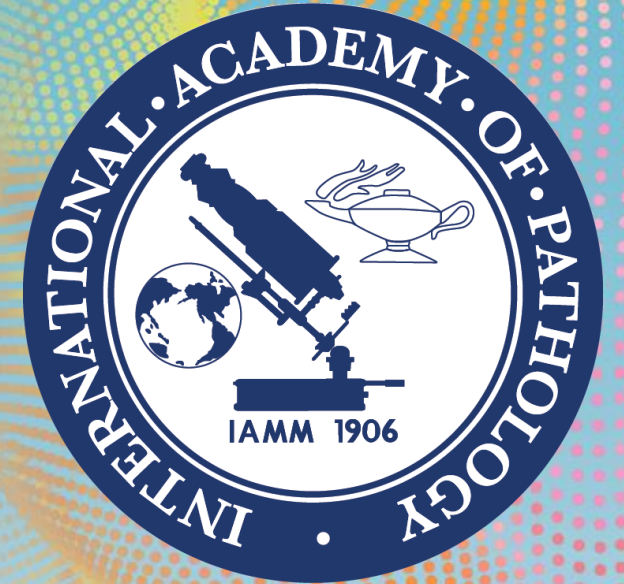


# Details of ridges: x400 magnification

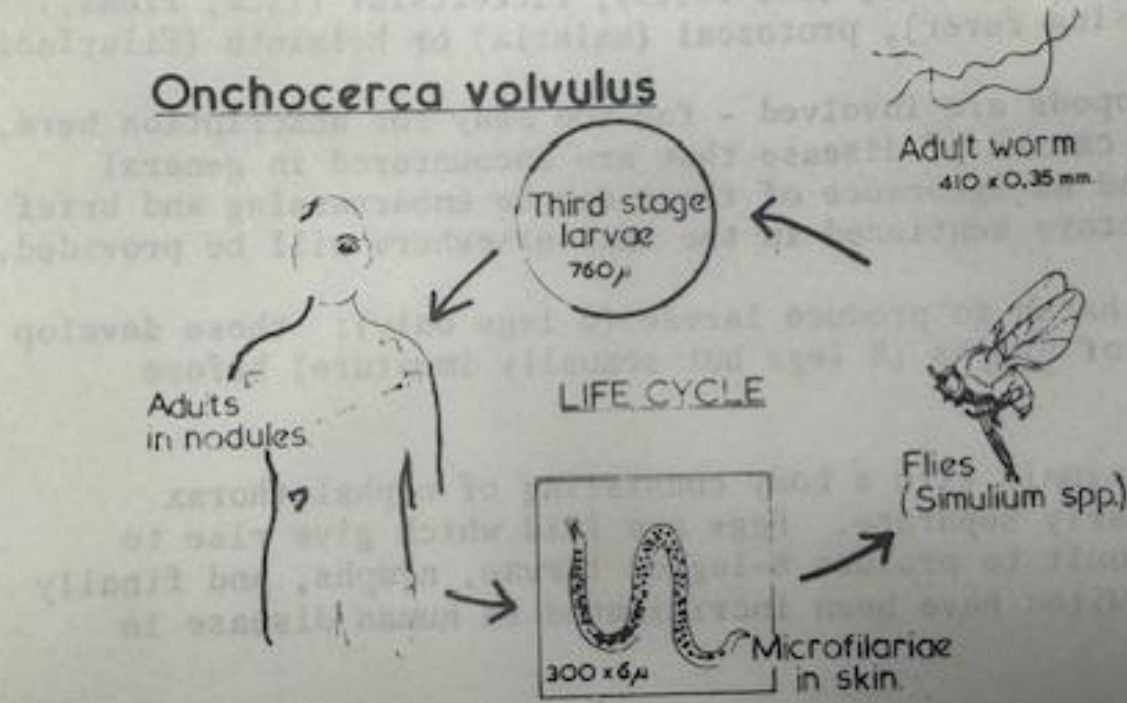


# Onchocerca Vovlulus

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# Onchocerca volvulus



# Treatment

6 weeks doxycycline

5 years Ivermectin dose every 6/12

Client, COLintR primers from Casiraghi et al., 2001 Parasitology (v122) to sequence a 629 bp portion of **Cytochrome Oxidase I**.

There is 100% match to ***Onchocerca volvulus***

**Dr Anson Koehler, Molecular Parasitologist**  
**The University of Melbourne**

The [sequence matched \*O. volvulus\* 100%](#) on GenBank to the following libraries: [\(AK\)](#)

AP017695 Complete mitochondrial genomes of 50 helminths species (Kikuchi,T., Holroyd,N. and Berriman,M)

KT599912 The mitogenome of Onchocerca volvulus from the Brazilian Amazonia focus (Crainey,J.L., Silva,T.R., Encinas,F., Marin,M.A., Vicente,A.C. and Luz,S.L.)

AM749285 Integrated taxonomy: traditional approach and DNA barcoding for the identification of filarioid worms and related parasites (Nematoda) (Ferri,E., Barbuto,M., Bain,O., Galimberti,A., Uni,S., Guerrero,R. Ferte,H., Bandi,C., Martin,C. and Casiraghi,M.)

# Control Programs

Reduce fly exposure

Reduce reservoir



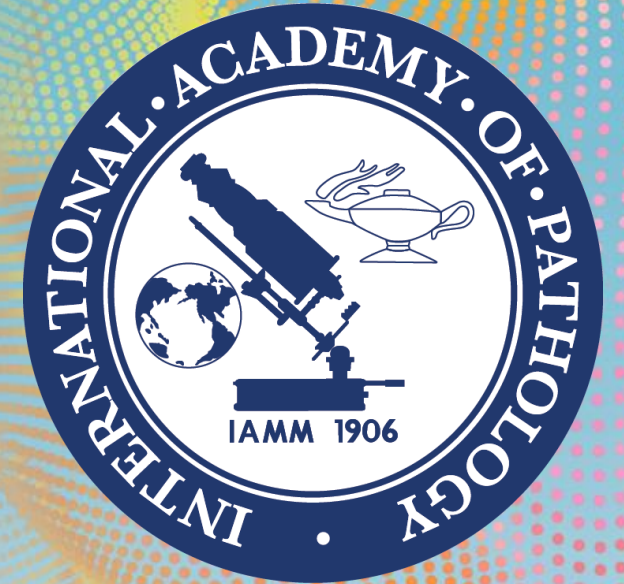
# Thanks to

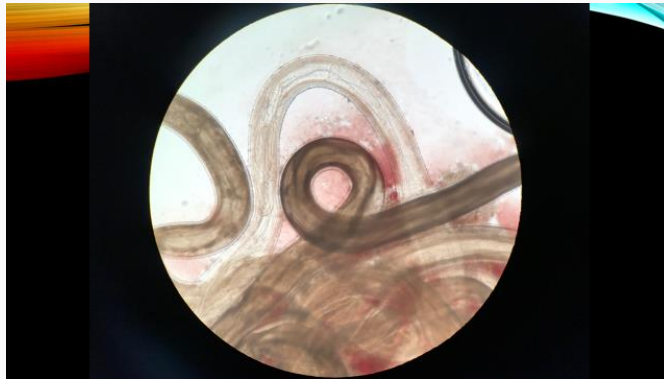
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Dr Amy Crowe

Dr Harsha Sheorey

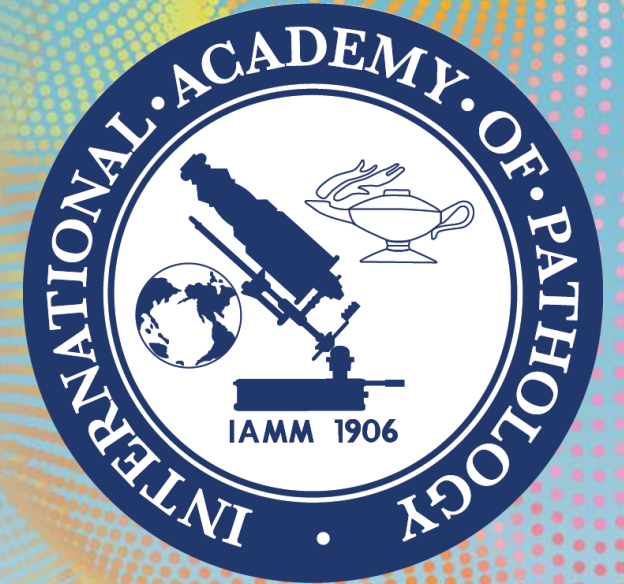
- Melb Uni





Thanks to

Dr Harsha Sheorey   Dr Amy Crow



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**Dr Anson Koehler, Molecular Parasitologist**  
**The University of Melbourne**

Core biopsy

