



Professor Wendy Gibson
B.Sc., Ph.D., D.Sc.(Lond.)

Professor of Protozoology

Area of research

Molecular Parasitology

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Summary

- General area of research is Molecular Parasitology, specifically parasitic protozoa
- The mechanism of genetic exchange (sexual reproduction) in trypanosomes
- Molecular evolution of trypanosomes
- Taxonomy of trypanosomes and epidemiology of sleeping sickness and animal trypanosomiasis
- Development and differentiation of trypanosomes within the tsetse vector

Further information about my research can be found by following this link to the [Molecular Parasitology Group home page](#).

Biography

I started research on African trypanosomes during my PhD at the London School of Hygiene & Tropical Medicine, collecting field samples from domestic animals in Liberia for subsequent isoenzyme analysis. Deeper understanding of trypanosomiasis in the field was obtained during a 4 year secondment to the Kenya Trypanosomiasis Research Institute. I subsequently trained in molecular biology with Prof Piet Borst at the Netherlands Cancer Institute funded by a Wellcome Trust Advanced Training Fellowship for 2 years, returning to UK on an MRC Senior Non-Clinical Fellowship.

Bsc Zoology University College London 1975

PhD London School of Hygiene and Tropical Medicine 1979

DSc University of London 1997

Vice President/President of British Society for Protist Biology 2006-2011

3rd Albert Dubois prize for Tropical Pathology 1995 from Belgian Academy of Medicine for work on genetic exchange in trypanosomes

Teaching

I have been a member of staff in the School of Biological Sciences since 1997. I teach across all three years of the degree course, including basic genetics and immunology, and my specialist subject, parasitology. I run a workshop on science communication ("How to teach the public about biology") with colleagues Ed Drewitt (Earth Sciences) and Nick Wray (Botanic Garden). I am currently head of teaching in the School of Biological Sciences.

Keywords

- Trypanosoma
- Tsetse fly

Methodologies

- molecular biological methods
- digital imaging

Memberships

Organisations

[School of Biological Sciences](#)

Other sites

- [Infection-immunity](#)

Research groups

- [Evolutionary Biology](#)
- [Plant and Agricultural Sciences](#)

Labs

- [Trypanosome Research Group](#)

Recent publications

- Kay, C, Peacock, L & Gibson, W, 2019, '[Trypanosoma congolense: In Vitro Culture and Transfection](#)'. *Current Protocols in Microbiology*, vol 53.
- Umeakuana, PU, Gibson, W, Ezeokonkwo, RC & Anene, BM, 2019, '[Identification of Trypanosoma brucei gambiense in naturally infected dogs in Nigeria](#)'. *Parasites and Vectors*, vol 12.
- Gibson, W & Peacock, L, 2019, '[Fluorescent proteins reveal what trypanosomes get up to inside the tsetse fly](#)'. *Parasites and Vectors*, vol 12.
- Peacock, L, Kay, C, Bailey, M & Gibson, W, 2018, '[Shape-shifting trypanosomes: Flagellar shortening followed by asymmetric division in Trypanosoma congolense from the tsetse proventriculus](#)'. *PLoS Pathogens*, vol 14.
- Gibson, W, Kay, C & Peacock, L, 2017, '[Trypanosoma congolense: molecular toolkit and resources for studying a major livestock pathogen and model trypanosome](#)'. in: David Rollinson, Russell Stothard (eds) *Advances in Parasitology*. Academic Press, pp. 283-309
- Gibson, W, Peacock, L & Hutchinson, R, 2017, '[Microarchitecture of the tsetse fly proboscis](#)'. *Parasites and Vectors*, vol 10.
- Gibson, W, 2016, '[Kinetoplastea](#)'. in: JM Archibald, AGB Simpson, CH Slamovits, L Margulis, M Melkonian, DJ Chapman, JO Corliss (eds) *Handbook of the Protists*. Springer International Publishing AG, Cham, pp. 1-50
- Lane-Serff, H, MacGregor, P, Peacock, L, Macleod, O, Kay, C, Gibson, W, Higgins, M & Carrington, M, 2016, '[Evolutionary diversification of the trypanosome haptoglobin-haemoglobin receptor from an ancestral haemoglobin receptor](#)'. *eLife*, vol 5.
- Peacock, L, Bailey, M & Gibson, W, 2016, '[Dynamics of gamete production and mating in the parasitic protist Trypanosoma brucei](#)'. *Parasites and Vectors*, vol 9.
- Avila, CCD, Peacock, L, Machado, FC, Gibson, WC, Schenkman, S, Carrington, M & Castilho, BA, 2016, '[Phosphorylation of eIF2 \$\alpha\$ on Threonine 169 is not required for Trypanosoma brucei cell cycle arrest during differentiation](#)'. *Molecular and Biochemical Parasitology*, vol 205., pp. 16-21

[View complete publications list](#) in the University of Bristol publications system

Networks & contacts

- Prof Michael Bailey