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Employment

MRC Career Development Fellow

Senior researcher
Biology
University of York
Wentworth Way, York
17 Oct 2022 → 30 Sept 2027

Qualifications

PhD, Biological Science - Molecular Parasitology, Université Paris Diderot-Paris 7

1 Sept 2009 → 19 Sept 2014

Award Date: 19 Sept 2014

Masters, Molecular and Cellular Biology: speciality Parasitology and Mycology, Université Pierre et Marie Curie

1 Sept 2009 → 16 Jul 2010

Award Date: 16 Jul 2010

Signalling pathways regulating cellular differentiation and survival in African trypanosomes, University of Edinburgh

1 May 2015 → 15 Oct 2022

Functional characterization of the Leishmania MAP kinase MPK10, Institut Pasteur, Paris

Nov 2009 → Mar 2015

Analysis of gene mutations of the alternative complement component in patients with atypical hemolytic uremic syndrome, Centre de Recherche des Cordeliers

Jun 2008 → Aug 2009

Research outputs

Mechanisms of life cycle simplification in African trypanosomes

Oldrieve, G. R., Venter, F., Cayla, M., Verney, M., Hébert, L., Geerts, M., Van Reet, N. & Matthews, K. R., 2 Dec 2024, In: Nature Communications. 15, 1, 14 p., 10485.

Differentiation granules, a dynamic regulator of *T. brucei* development

Cayla, M., Spanos, C., McWilliam, K., Waskett, E., Rappsilber, J. & Matthews, K. R., 6 Apr 2024, In: Nature Communications. 15, 1, 16 p., 2972.

Distinguishing functions of trypanosomatid protein kinases

Cayla, M., Nievas, Y. R., Matthews, K. R. & Mottram, J. C., 1 Nov 2022, In: Trends in parasitology. 38, 11, p. 950-961 12 p.

Basement membrane proteins as a substrate for efficient *Trypanosoma brucei* differentiation in vitro

Rojas, F., Cayla, M., Matthews, K. R. & Nakhasi, H. L. (Editor), 28 Apr 2021, In: PLOS NEGLECTED TROPICAL DISEASES. 15, 4, 11 p., e0009284.

A global analysis of low-complexity regions in the *Trypanosoma brucei* proteome reveals enrichment in the C-terminus of nucleic acid binding proteins providing potential targets of phosphorylation

Cayla, M., Cayla, M., Matthews, K. R. & Ivens, A. C., 18 Nov 2020, In: Wellcome Open Research. 5, 219.

Gel-Based Methods for the Investigation of Signal Transduction Pathways in *Trypanosoma brucei*

Szöör, B. & Cayla, M., 28 Mar 2020, *Methods in Molecular Biology*. Springer, Vol. 2116. p. 497-522 26 p.

An atypical DYRK kinase connects quorum-sensing with posttranscriptional gene regulation in *Trypanosoma brucei*

Cayla, M., McDonald, L., MacGregor, P. & Matthews, K., 26 Mar 2020, In: *eLife*. 9, 34 p., e51620.

African trypanosomes

Cayla, M., Rojas, F., Silvester, E., Venter, F. & Matthews, K. R., 1 Apr 2019, In: *Parasites & vectors*. 12, 1, 190.

Non-linear hierarchy of the quorum sensing signalling pathway in bloodstream form African trypanosomes

McDonald, L., Cayla, M., Ivens, A., Mony, B. M., MacGregor, P., Silvester, E., McWilliam, K., Matthews, K. R. & Hill, K. L. (Editor), 25 Jun 2018, In: *PLOS PATHOGENS*. 14, 6, 31 p., e1007145.

Transgenic Analysis of the Leishmania MAP Kinase MPK10 Reveals an Auto-inhibitory Mechanism Crucial for Stage-Regulated Activity and Parasite Viability

Cayla, M., Rachidi, N., Leclercq, O., Schmidt-Arras, D., Rosenqvist, H., Wiese, M., Späth, G. F. & Jaffe, C. L. (Editor), 18 Sept 2014, In: *PLOS PATHOGENS*. 10, 9, 18 p., e1004347.

Complement Factor B Mutations in Atypical Hemolytic Uremic Syndrome—Disease-Relevant or Benign?

Marinozzi, M. C., Vergoz, L., Rybkine, T., Ngo, S., Bettoni, S., Pashov, A., Cayla, M., Tabarin, F., Jablonski, M., Hue, C., Smith, R. J., Noris, M., Halbwachs-Mecarelli, L., Donadelli, R., Fremeaux-Bacchi, V. & Roumenina, L. T., 1 Sept 2014, In: *Journal of the American Society of Nephrology*. 25, 9, p. 2053-2065 13 p.

Probing druggability and biological function of essential proteins in *Leishmania* combining facilitated null mutant and plasmid shuffle analyses

Dacher, M., Morales, M. A., Pescher, P., Leclercq, O., Rachidi, N., Prina, E., Cayla, M., Descoteaux, A. & Späth, G. F., 1 Jun 2014, In: *Molecular Microbiology*. 93, 1, p. 146-166 21 p.

Large spectrum of Factor B aHUS mutations functional consequences on the C3 convertase — From gain to lack of functional consequence

Roumenina, L. T., Vergoz, L., Rybkine, T., Donadelli, R., Cayla, M., Smith, R., Noris, M., Halbwachs-Mecarelli, L. & Fremeaux-Bacchi, V., 1 Nov 2012, In: *Immunobiology*. 217, 11, p. 1180-1181 2 p.

Further evidence for a paradoxical role of the alternative pathway C3 convertase in atypical haemolytic Uremic Syndrome

Roumenina, L., Cayla, M., Hue, C., Bigot, S., Satchell, S., Mathieson, P., Loirat, C., Sautes-Fridman, C., Dragon-Durey, M.-A., Halbwachs-Mecarelli, L. & Fremeaux-Bacchi, V., 1 Sept 2009, In: *Molecular immunology*. 46, 14, p. 2863 1 p.

Hyperfunctional C3 convertase leads to complement deposition on endothelial cells and contributes to atypical hemolytic uremic syndrome

Roumenina, L. T., Jablonski, M., Hue, C., Blouin, J., Dimitrov, J. D., Dragon-Durey, M. A., Cayla, M., Fridman, W. H., Macher, M. A., Ribes, D., Moulouquet, L., Rostaing, L., Satchell, S. C., Mathieson, P. W., Sautes-Fridman, C., Loirat, C., Regnier, C. H., Halbwachs-Mecarelli, L. & Fremeaux-Bacchi, V., 1 Sept 2009, In: *Blood*. 114, 13, p. 2837-2845 9 p.

Funding / Awards

MRC Career Development Award

Cayla, M. (Awardee)

3 Oct 2022 → 30 Sept 2027

Projects

Signalling and regulation of autophagy related pathways during cellular differentiation of African trypanosomes

Cayla, M. (Principal investigator)

3/10/22 → 30/09/27

