CURRICULUM VITAE

Patu Calina

Personal Details

• Name: Peter M.B. Cahusac

• <u>Date of Birth</u>: 12 September 1957

Married, one son & one daughter

Address: College of Medicine

Alfaisal University

P.O. Box 50927

Riyadh 11533

Kingdom of Saudi Arabia

Affiliated with:

Department of Comparative Medicine

King Faisal Specialist Hospital & Research Centre

Riyadh

• Contact Telephone Numbers:

Office: +966 (0)1 215 7640 Mobile: +966 (0)5 47470783

Email: pcahusac@alfaisal.edu

https://exalv.com/author/9563524/peter-cahusac/rankings

https://orcid.org/0000-0003-4976-2834

https://www.scopus.com/authid/detail.uri?authorId=6701759808

Qualifications/Professional Memberships

MSc Applied Statistics, University of Oxford 7 November 1992

(Supervisor Dr Francis H.C. Marriott, thesis title: *A Statistical Analysis of Neuronal Activity Related to Associative Learning*)

PhD Pharmacology, University of Bristol 20 June 1984

(Supervisor Dr R.G. Hill, thesis title: A Behavioural and Neuropharmacological Study of the Modulation of Trigeminal Nociception in the Rat)

BSc Hons 2.1 Psychology, University of St Andrews 4 July 1980

Fellowship of the Physiology Society of London, FPhysiol (May 2018)

Fellow of the Royal Statistical Society, GradStat (from 2009 - 2021)

Chartered Statistician CStat, Royal Statistical Society (since 15 June 2021)

Member of the British Pharmacological Society (since 2006)

Ordinary Member of the Physiological Society of London (since 1993)

Foreign member of the Society for Neuroscience (since 1992)

Career History

• Associate Professor in Pharmacology & Biostatistics at College of Medicine, Alfaisal University, from 1 September 2012 – present.

- Adjunct Scientist at King Faisal Specialist Hospital & Research Centre, Riyadh, from 12 December 2014 present.
- Part-time Statistical Consultant at King Saud Medical City Research Centre, Riyadh, from 17 November 2014 - 2016.
- Lecturer in Psychology at the University of Stirling, from 1 Jan 1994 31 Aug 2012.
- Research Lecturer in Psychology at the University of Stirling, from 1 Jan 1990 31 Dec 1993.
- Research Assistant on Project and Programme Research grants funded by the Medical Research Council, Department of Experimental Psychology, University of Oxford, Feb 1984 - Dec 1989.

Experience

Teaching

Alfaisal University, Riyadh, KSA (since 2012)

- Faculty Advisor for student projects, statistical advisor
- Pharmacology in POD block
- Biostatistics BEP 235, 2nd year
- Master's REC 502 Biostatistics core course
- Part of Biostatistics & Basic Research Methods course for Pharm. D. Program, College of Pharmacy, 2018
- Director of MBS Clinical Embryology & Reproductive Biology track, commencing September 2015-2021
- Director of Master of Science in Applied Health Research, commenced September 2021 -

Stirling University

- Co-ordinator for PSY914 Research Methods
- Contributor to PSY9A4 Brain and Behaviour Clinical Perspectives
- Elective co-ordinator for statistical methods, final year project supervisor, statistical advisor
- Chief Examiner and Exams Officer (2010 2012)

Oxford University, UK (1987-1989)

• College tutor in statistics

Administration & Other

- Invited member of the Assessment Committee, providing statistical analysis and quality control. Research Committee member
- Graduate Programs Committee member
- Member of the Clinical Research Committee of KFSH&RC until September 2016
- Alfaisal IRB member and reviewer

Statistical Experience

- I co-ordinated the 2nd year undergraduate Research Methods (PSY914) course from 1999 2012. I also contributed and co-ordinated the MSc in Research Methods course.
- I have co-ordinated two final year elective modules on advanced statistical methodology. One on multivariate analyses. The other titled: *Evidence and Probability in Statistical Reasoning*, examined Likelihood and Bayesian approaches to statistical inference.

- From 2011 I have installed a statistical web resource for staff and students, consisting of useful weblinks, documents (statistical research literature) and a discussion board. This also provides specific resources for SPSS and R.
- As well as using SPSS and Minitab for teaching and research, since 2009 I have learnt the statistical programming language R. In addition I have used the Excel add-in RExcel which allows transfer of data and functions between R and Excel.
- Since 2011 I have run a statistical blog at: http://handlesman.blogspot.com/
- I have provided statistical advice to students (postgraduate and undergraduate) as well as for staff in their published research, grants (as paid consultant) and grant applications.
- I have acted as a statistical reviewer for Physiology News, and as a referee for HTA Clinical Evaluation and Trials (Southampton). I have also been a paid reviewer for statistical book proposals submitted to Wiley-Blackwell, Pearson Education and Sage Publications.
- I have published book reviews of statistical books in the *British Journal of Mathematical and Statistical Psychology*.
- Took postgraduate workshop Scotland PGwT Programme "What do you need to know to teach statistics?" University of Strathclyde, 5 October 2011.
- In 2013 I gave a series of seminars on statistical methodology to postgraduate students at King Saud University, College of Dentistry, Riyadh
- Since 2013 I have contributed to the 2nd year medical students Biostatistics block at Alfaisal University.
- I have published articles in Physiology News on statistical reporting and methodology, and have published an introductory statistics textbook *Starting out in Statistics: An Introduction for Students of Human Health, Disease, and Psychology* with Dr Patricia de Winter (UCL), Wiley-Blackwell Publishing (2014).
- In February 2014 I acted as a moderator at the Clinical Research Training Course in Jeddah
- Member of **Clinical Research Committee** for King Faisal Specialist Hospital and Research Centre, providing statistical expertise, Sept 2014 Sept 2016
- Invited to contribute to the research methods satellite meeting for the **Gulfthoracic** symposium in Dubai in March 2015
- King Saud Medical City workshop: Recording & Analysing Data, 22 January 2015
- Invited speaker at the King Saud Medical City course on **Principles and Ethical Aspects of Clinical Research**, topic: "Risks/Benefits and Conflicts of Interest in Clinical Research", May 27 28, 2015
- King Saud Medical City workshop: A Crash Course in R for Data Analyses, 15 June 2015
- Successfully completed **Stanford Online** *Statistics in Medicine* course given by Kristin L. Sainani, 15 September 2015
- King Saud Medical City workshop: Getting Started with Statistics, 13 October 2015
- King Saud Medical City workshop: *Common Statistical Analyses using R*, 23 November 2015
- King Saud Medical City workshop: *Data Entry & Checking using Excel & SPSS*, 22 December 2015
- King Saud Medical City seminar: *Using Your (smart)Phone to Collect Data for Research,* 1 February 2016
- King Saud Medical City seminar: A Guide to Meta-Analysis, 5 April 2016
- Saudi International Medical Education Conference SIMEC workshop, Alfaisal University: *Using R in Data Analysis*, 9 April 2016
- Member of Clinical Research Committee for King Faisal Specialist Hospital and Research Centre, providing statistical expertise, Sept 2016 – Sept 2018

- Member of the institutional review board (IRB) for Alfaisal University from 2016 -
- Research collaboration with Dr Hala Amer, King Saud Medical City, Riyadh in 2016.
- Workshop on Computational & Mathematical Medicine (Alfaisal University), delivered talk: *What's the Use of Big Data?* 20 April 2017.
- Second Symposium on Computational & Mathematical Medicine (Alfaisal University), delivered talk: *What's the Likelihood...?* 29 March 2018.
- Saudi International Medical Education Conference 2018 (SIMEC 2018) Oral Presentation: "Evidence Based Statistics" 3 April 2018.
- 3rd Medical Publication Workshop at Prince Sultan Military Medical City, invited speaker for 2 sessions 30 April 1 May 2018.
- Organiser of **What's Statistics Good For?** Statistics Workshop at the Physiological Society (UK) annual meeting at Aberdeen on 9 July 2019.
- Speaker: **The Likelihood of Evidence-based Statistics** at Statistics Workshop at the Physiological Society (UK) annual meeting at Aberdeen on 9 July 2019
- Speaker: **Categorical Data** at Family Medicine Residency Research Course at King Faisal Specialist Hospital & Research Centre on 11 December 2019
- Seminar for 4th year Alfaisal Biological Science students taking course LSR423, titled "The Likelihood Approach to Statistics", 24 February 2020.
- R statistics workshop for postgraduate students 3 x 3-hour sessions, 26 Jan 16 February 2022.
- Statistical package **likelihoodR** published on CRAN R statistical programming, 11 February 2021.
- Evidence-Based Statistics, Stirling University Psychology Department seminar, 23 June 2022
- Created a log likelihood ratio analysis module **jeva** for jamovi, available in their library from 10 October 2022

Research

My neuroscience research is centred on the somatosensory system. I use two experimental approaches to study the functional role of metabotropic glutamate receptors at two different levels of the neuraxis:

- 1) Extracellular and intracellular recording with microiontophoresis in the primary somatosensory (barrel) cortex of the rat. The rat's barrel cortex is a widely recognized model of cortical function. I am currently studying the differential role of metabotropic glutamate receptors in the processing of different types of somatosensory information, including nociception. Physiologically characterised cortical cells are also being filled with neurobiotin and visualised.
- 2) Extracellular recording from the deep vibrissal nerve of the isolated vibrissa preparation. This is now an established preparation highly appropriate to study the pharmacology of different types of skin touch receptors. I have a special interest in the pharmacology of slowly adapting Type I units, which are believed to be associated with Merkel cells in the skin, and are known to be important for high resolution tactile discrimination. This preparation is also being used to identify the TRP channels involved in mechanotransduction at slowly adapting receptors. In addition, Dr Senok and I have been collaborating in an investigation of K+ channels in spontaneous and evoked responses of slowly adapting units.

I established a very fruitful collaboration with the Biomedical Tissue Research Group (Dr P. Genever) at the University of York, which resulted in two recent papers. I am currently collaborating with Dr S. Senok, College of Medicine, Alfaisal University, Riyadh, Saudi Arabia, and also with Dr Guy Bewick, School of Medical Sciences, University of Aberdeen and Dr Bob Banks, School of Biological and Biomedical Sciences, Durham University.

- Elected Fellow of the Physiological Society, May 2018.
- Invited lecture: "Merkel Nerve Endings what do the Merkel cells do?" Life Sciences, College of Science, Alfaisal University, 7 March 2017.
- Invited seminar: "Merkel Nerve Endings what do the Merkel cells do?" Department of Physiology, Tokyo University, 16 February 2015.
- Appointed member of the Clinical Research Committee for King Faisal Specialist Hospital and Research Centre in February 2014, then re-appointed in September for a term of 2 years until September 2016, extended to September 2018.
- Evaluation of Dr Ellen Lumpkin for Professorial tenure in the Departments of Dermatology, and Physiology & Cellular Biophysics, Columbia University Medical Center, 2015.
- Reviewer for Annals of Saudi Medicine, Saudi Dental Journal
- In 2009, joint organiser (with Gordon Reid) of Physiological Society symposium at main meeting in Dublin, titled: "Somatosensory transduction mechanisms"
- Speaker at Barrels XX, symposium on primary somatosensory cortex, La Jolla, California, 1 2 November 2007.
- Keynote speaker to the International Merkel Cell Symposium at Hamburg in 2002.
- Invited speaker to the IUPS Symposium on Organisation and Processing in the Cerebral Cortex for Sensation and Perception at Sydney in 2001.
- I have supervised 2 PhD research students and 2 MSc research students. I have supervised MSc project students. I have also been 2nd supervisor for students, and have acted as an internal examiner for a PhD.
- I acted as a referee for the MRC Advisory Board until its end due to restructuring in February 2005, and was appointed a referee in March 2006.
- In 1998 external assessor on 5 year cycle for the NIMR Divisions of Developmental Neurobiology, Neurobiology and Neurophysiology, Mill Hill.
- Refereed papers for the following journals: Neuroscience, European J. Neuroscience, Visual Neuroscience, Br. J. Pharmacol., Neuropharmacology, J. of Physiology (Lond.), J. of Alzheimer's Disease, Neuroscience Letters, Q. J. Exp. Psychology, Chemosensory Perception, Pflugers Archiv-European Journal of Physiology. Refereed grant applications to: the Wellcome Trust, National Science Foundation (U.S.), BBSRC and the MRC.
- Statistical consultant to a grant funded by the Scottish Office (2001 2004).
- Statistical consultant to a grant funded by the Scottish Office (2007 2008).
- Consultant for Project Grant awarded to Dr F.A.W. Wilson (University of Arizona, Tucson, USA) by the NIH, 1999.
- I was consulted for a science documentary proposal for the BBC television in 1997, and in 2003 was commissioned (completed cost £857) to build a robotic tactile (tickle) stimulator to be used in a BBC1/Discovery programme for the series on the Human Senses. I was invited to appear in the programme. In November 2004 I was interviewed by Edi Stark of BBC Scotland for her Take Five: Touch programme broadcast 14 March 2005.
- Selected for inclusion in RAE 2001 and RAE 2008.

- K. Taylor (funded by SERC) "The effects of the metabotropic glutamate receptor agonist 15,3R-ACPD on neurons of the rat somatosensory cortex in vivo" started 1992 and obtained MSc thesis 1993.
- H. Wan "Electrophysiological and pharmacological studies of cortical function in the adult rat in vivo" started part-time November 1992, awarded PhD 27 June 1996.
- S. Dolan (funded by SERC) "Plasticity in the adult rat somatosensory system following sensory deprivation" started October 1993, awarded PhD 26 June 1997.
- B.M. Fagan (University funded) "A pharmacological investigation into neurotransmitter involvement in the slowly adapting sinus type (St I) mechanoreceptor" started MSc October 1 1997, awarded MSc July 2002.
- C. Adams MSc in Sports Studies, Sept 2000 2001, awarded 2001.
- E. Moodie, PhD, 2005 2006, awarded 2010
- I. Sharma, MSc in Pharmacology at Glasgow Caledonian University, awarded 2007
- S.C. Mavulati, MSc in Pharmacology at Glasgow Caledonian University, awarded 2008
- V.A. Veermalla, MSc in Pharmacology at Glasgow Caledonian University, awarded 2010
- P. Safaie, PhD, Stirling University, 2011 2012.

Grants & Awards:

- 2015: Alfaisal University Internal Research Grant, 23,400 SAR.
- 2013: Alfaisal University Small Research Project grant, 88,600 SAR.
- 2011: Physiological Society, £446, travel grant.
- 2009: Physiological Society, £4,000, Organiser for Somatosensory transduction mechanisms symposium at main meeting in Dublin, July.
- 2007: Physiological Society, £190, travel grant.
- 2007: William Ramsay Henderson Trust £956, "The contribution of metabotropic glutamate receptors to nociceptive processing in rat primary somatosensory cortex"
- 2006: Nuffield Foundation £1,285 for Undergraduate Bursary (Rosemary Noyce), "The involvement of thermoTRP channels in the thermal sensitivity of slowly adapting type I receptors of the skin".
- 2004: Bursary £640 from ESRC for attendance at 2 day workshop on Qualitative Statistical Modelling 16 17 December.
- 2003: BBC £857 commissioned to build a tactile stimulator, and consultant for one programme in a series on the Human Senses.
- 2002: Nuffield Foundation £1,275 for Undergraduate Bursary (Filip Aggestam), "A rodent's view of the world: real object recognition using vibrissae."
- 2001-2003: Wellcome Trust research grant of £85,914 titled: "An investigation of chemical transmission in the Merkel cell-neurite complex".
- 1997: Human Frontier Science Program £2,768 Short-term Fellowship for collaborative visit to Laboratory of Neural Systems, Memory & Aging, University of Arizona, Tucson, USA, 15 July 15 August. Appointed as a consultant for 3 years on a Project Grant awarded to Dr F.A.W. Wilson (University of Arizona, Tucson, USA) by the NIH expenses and consumables paid.
- 1996: Wellcome Trust £1,083 funded visit to the Chinese University of Hong Kong to learn about the isolated vibrissa preparation.
- 1993: Physiological Society £150 grant to attend the International Union of Physiological Sciences Meeting in Glasgow.
- 1992: Selected to attend the European Training Programme Winter School at Zuoz, Switzerland Jan 4 11 on "Organisation and Plasticity of neural systems in learning and memory", and received travel and expenses grant.
- 1992: Wellcome Trust, £1,500 additional grant for travel.

1992: University Research Fund, £4,000 for microscope system.

1991: Wellcome Trust. £97,841 for Fellowship plus equipment and expenses

1991: Royal Society £7,635 for Equipment and expenses.

1991: MRC £62,802 Research grant.

1991: SERC £24,183 research grant plus an Earmarked studentship awarded from SERC.

1991: University Equipment Fund, £17,400 for laboratory equipment.

List of Recent Publications

Books & Book Chapters

Cahusac, P.M.B. (2020) Evidence-Based Statistics: An Introduction to the Evidential Approach – from Likelihood Principle to Statistical Practice, John Wiley & Sons.

https://onlinelibrary.wiley.com/doi/book/10.1002/9781119549833

https://www.amazon.co.uk/Evidence-Based-Statistics-Introduction-Evidential-Statistical/dp/1119549809/

Cahusac, P.M.B. (2018) Entry for: 1*S*,3*R*-ACPD, Elsevier Reference Module in Biomedical Sciences.

https://doi.org/10.1016/B978-0-12-801238-3.96907-1

de Winter, P & Cahusac, PMB (2014) *Starting out in Statistics: An Introduction for Students of Human Health, Disease, and Psychology*, Wiley Blackwell. ISBN-13: 978-1118384015 Kindle edition: http://www.amazon.co.uk/Starting-out-Statistics-Introduction-Psychology-ebook/dp/B00NAWGARC/

Cahusac, P.M.B. (2008) Glutamate signalling in the skin, In: *Amino Acid Receptor Research*, Paley, E. F. and Warfield, T. E., Nova Science Publishers, 125-137.

Cahusac, P.M.B. (2003) Are glutamate receptors involved in transmission at the Merkel cell-neurite junction? In: *The Merkel cell – structure – development – function – and Merkel cell carcinoma*, Klaus I. Baumann, Zdenek Halata and Ingrid Moll (eds), Springer-Verlag.

Senok, S.S., Genever, P.G., Cahusac, P.M.B. & Baumann, K.I.(2003) Glutamate receptor-like immunoreactivity in rat vibrissal Merkel cells, In: The Merkel cell – structure – development – function – and Merkel cell carcinoma, Klaus I. Baumann, Zdenek Halata and Ingrid Moll (eds), Springer-Verlag.

Cahusac, P.M.B. The Perception of Touch, In: <u>Signals and Perception: the Fundamentals of Human Sensation</u>, edited by D. Roberts, Palgrave, The Open University, 2002

Cahusac, P.M.B. Entry for <u>Fives</u>, *Encyclopedia of British Sport*, R. Cox, G. Jarvie & W. Vamplew (eds), ABC-Clio, Oxford, pp140-141, 2000.

Cahusac, P.M.B. Entry for <u>Real Tennis</u>, *Encyclopedia of British Sport*, R. Cox, G. Jarvie & W. Vamplew (eds), ABC-Clio, Oxford, pp320-321, 2000.

Salt, T.E., Hill, R.G., Cahusac, P.M.B. & Morris, R. Behavioural and electrophysiological studies related to nociception in capsaicin-treated rats, In: B. Matthews & R.G. Hill (eds), <u>Anatomical, Physiological and Pharmacological Aspects of Trigeminal Pain</u>, Excerpta Medica, Amsterdam, pp 97-102, 1982

Morris, R., Hill, R.G., Cahusac, P.M.B. & Salt, T.E. The involvement of endogenous opioids in the descending inhibition of caudal trigeminal and reticular nociceptive neurones evoked by analgesia producing periaqueductal grey stimulation in the rat, In: <u>Anatomical</u>, <u>Physiological and Pharmacological</u>

Full papers

- Cahusac, P.M.B. & Senok, S.S. (2022) Effects of Potassium Channel Blockers and Openers on Slowly Adapting Mechanoreceptors, IBRO Neuroscience Reports, 13:344-355 https://doi.org/10.1016/j.ibneur.2022.10.002
- Cahusac, P. (2022) Log Likelihood Ratios For Common Statistical Tests Using The likelihoodR Package, *The R Journal*,: In Press
- Ahmed Alrashed, Peter Cahusac, Yahya A. Mohzari, Reem F. Bamogaddam, Mashael Alfaifi, Maya Mathew, Bashayer F. Alrumayyan, Basmah F. Alqahtani, Amjad Alshammari, Kholud AlNekhilan, Aljawharah Binrokan, Khalil Alamri, Abdullah Alshahrani, Safar Alshahrani, Ahmad S. Alanazi, Batool M. Alhassan, Ali Alsaeed, Wedad Almutairi, Asma Albujaidy, Lama AlJuaid, Ziyad S Almalki, Nehad Ahmed, Hamdan N. Alajami, Hala M. Aljishi, Mohammed Alsheef, Saleh A Alajlan, Faisal Almutairi, Atheer Alsirhani, Manayer Alotaibi, Melaf A. Aljaber, Dr. Hammam Ahmed Bahammam, Hussain Aldandan, Abdulaziz S. Almulhim, Ivo Abraham and Ahmad Alamer (2022) A Comparison of Three Thromboprophylaxis Regimens in Critically Ill COVID-19 Patients: An Analysis of Real-World Data, Frontiers in Cardiovascular Medicine, 9: https://doi.org/10.3389/fcvm.2022.978420
- Cahusac, P.M.B. & Veermalla, A. (2022) Effects of camphor and related compounds on slowly adapting mechanoreceptors in the rat sinus hair follicle, *IBRO Neuroscience Reports*, **13:**114-119 https://doi.org/10.1016/j.ibneur.2022.07.002
- Cahusac, P.M.B. & Mansour, S.E. (2022) Estimating sample sizes for evidential t tests, *Research in Mathematics*, **9(1):**1-12 https://doi.org/10.1080/27684830.2022.2089373
- Cahusac, P. (2022) Statistical Thinking from Scratch: A Primer for Scientists, *J R Stat Soc Series A.*, **185(3):**1463 https://doi.org/10.1111/rssa.12843
- AlHusseini, N., Sajid, M., Akkielah, Y., Khalil, T., Alatout, M., Cahusac, P., Ikram, M (2021) Vegan, Vegetarian and Meat-Based Diets in Saudi Arabia, Cureus, 13(9):e18073 https://DOI:10.7759/cureus.18073Alhusseini, N.K., Sajid, M.R., Alsheikh, H.A., Sriwi, T.H., Odeh, N.B., Elshaer, R.E., Altamimi, R.E., Cahusac, P.M.B. (2021) Evaluation of COVID-19 myths in Saudi Arabia, Saudi Med. J., 42(4): 377-383 https://doi.org/10.15537/smj.2021.42.4.20200706
- Al-Jazairi, A.S., AlQadheeb, E.K., AlShammari, L.K., AlAshaikh, M.A., Al-Moeen, A., Cahusac, P. & Al-Swailem, O. (2021) Clinical Validity Assessment of Integrated Dose Range Checking Tool in a Tertiary Care Hospital Using an Electronic Health Information System, Hospital Pharmacy, 56(2):95-101. https://doi.org/10.1177/0018578719867663
- Sajid, M., Shaikh, A.A., Ikram, M.F., Cahusac, P., Yaqinuddin, A., AlKattan, W., Rohra, D. (2020) Comparative Analysis of Effectiveness Between Flipped Classroom and Lecture-Based

- Classroom in Undergraduate Medical Education at Alfaisal University, <u>Cureus</u>, online: https://doi.org/10.7759/cureus.11408
- Cahusac, P.M.B. & Senok, S.S. (2020) Does hyaluronidase enhance drug penetration to mechanoreceptors? *Skin Pharmacology and Physiology*, **33:** 253-260 https://doi.org/10.1159/000510890
- Cahusac, P.M.B. (2020) Data as Evidence, <u>Experimental Physiology</u>, **105**: 1071–1080 https://physoc.onlinelibrary.wiley.com/doi/abs/10.1113/EP088664
- Rohra, D.K., Abuomar, O.A., Cahusac, P.M.B., Dangol, A., Ranasinghe, P. (2020) Comparative Analysis of Prescription Drug Prices in South Asian Association for Regional Cooperation Countries, <u>Value In Health Regional Issues</u>, **21**:113–119 https://doi.org/10.1016/j.vhri.2019.09.004
- Albadr, T., Alruhaimi, D., Cahusac, P. & Rohra, D. (2019) Knowledge and use of isotretinoin in Saudi female college students: Cross-sectional study, <u>Journal of Dermatology and Dermatologic Surgery</u>, **23**:76-80.

 DOI:10.4103/jdds.jdds 2 19
- Alshedoukhy, A., Cahusac, P., Kashir, J., Alkhawaja, F.H., Tulbah, A.M.M. & Anwar, K. (2019) A retrospective study of malignant melanoma from a tertiary care centre in Saudi Arabia from 2004 to 2016, Clinical and Translational Oncology, 22: 663-669, https://doi.org/10.1007/s12094-019-02169-w
- Alem, M.M., Al Sheri, A., Cahusac, P., Walters, M.R. (2018) Effect of xanthine oxidase inhibition on arterial stiffness in patients with chronic heart failure, <u>Clinical Medicine Insights:</u>
 <u>Cardiology</u>, **12**:1-10.
 https://doi.org/10.1177/1179546818779584
- Mohammaddin, A., Rohra, D.K., Mortaja, S., Abanmi, S., Al Saati, O., Cahusac, P.M.B., Khawaja, R.A., Al-Selaihem, A., Al-Omran, Y. (2018) Effects of camel milk in dyslipidemia: A randomized clinical trial, <u>International Dairy Journal</u>, **84**:79-84. https://doi.org/10.1016/j.idairyj.2018.03.015
- Cahusac, P.M.B. & Senok, S. (2018) Selective decline in the prevalence of slowly adapting type I mechanoreceptors during development, <u>International Journal of Developmental Neuroscience</u>, **68:**35-38. https://doi.org/10.1016/j.ijdevneu.2018.04.001
- Al-Ghamdi, B.S., Rohra, D.K., Abuharb, G.A.I., Alkofide, H.A., AlRuwaili, N.S., Shoukri, M.M. & Cahusac, P.M.B. (2018) Use of beta blockers is associated with hearing loss, <u>International Journal of Audiology</u> 57:213-220. https://doi.org/10.1080/14992027.2017.1405162
- Anwar, K., Sajid, M.R., Cahusac, P., Shaikh, A.A., Elgammal, A., Alshedoukhy, A. & Kashir, J. (2017) Can Facebook pages be a mode of blended learning to supplement in-class teaching in Saudi Arabia?, <u>Adv Physiol Educ</u> **41**:472–477.
- Ghawji, M., Sajid, M.R., Shaikh, A.A., Sheriff, R., Cahusac, P. & Alkattan, K. (2017) Perspectives of students and mentors on a formal mentorship program in Saudi Arabia, <u>International Journal of Medical Education</u>, 8:25-27.

- Rohra, D.K., Rohra, V.K. & Cahusac, P.M.B. (2016) Institute for Scientific Information-indexed biomedical journals of Saudi Arabia: Their performance from 2007-2014, <u>Saudi Med. J.</u>, **37**(11):1251-1257.
- Bewick, G. S., Cahusac, P. M. B., Banks, R. W. (2016) Combined Recording of Mechanically Stimulated Afferent Output and Nerve Terminal Labelling in Mouse Hair Follicle Lanceolate Endings. J. Vis. Exp., 111, e53854, doi:10.3791/53854 http://dx.doi.org/10.3791/53854
- Anwar, K., Shaikh, A.A., Sajid, M.R., Cahusac, P. Alarifi, N.A. & Alshedoukhy, A. (2015) Tackling student neurophobia in neurosciences block with team-based learning, Medical Education Online, 20: 28461(1-6) http://dx.doi.org/10.3402/meo.v20.28461
- Banks, RW, Cahusac, PM, Graca, A, Kain, N, Shenton, F, Singh, P, Nja, A, Simon, A, Watson, S, Slater, CR & Bewick, GS (2013) Glutamatergic modulation of synaptic-like vesicle recycling in mechanosensory lanceolate nerve terminals of mammalian hair follicles, <u>Journal of Physiology</u>, **591(10):**2523-2540.
- Cahusac, P.M.B. (2010) Multiple Regression, Physiology News, 80:12-15.
- Cahusac, P.M.B. (2009) Effects of transient receptor potential (TRP) channel agonists and antagonists on slowly adapting type II mechanoreceptors in the rat sinus hair follicle, Journal of the Peripheral Nervous System, 14:300-309.
- Cahusac, P.M.B. (2009) Statistical methodology and reporting the case for confidence intervals, <u>Physiology News</u>, **74**:33-36.
- Cahusac, P.M.B. & Mavulati, S.C. (2009) Non-competitive mGlu1 receptor antagonists block activity of slowly adapting type I mechanoreceptor units in the rat sinus hair follicle, Neuroscience, **163**:933-941.
- Cahusac, P.M.B. & Noyce, R. (2007) A pharmacological study of slowly adapting mechanoreceptors responsive to cold thermal stimulation, Neuroscience, **148**:489-500.
- Dolan, S. & Cahusac, P.M.B. (2007) Enhanced short-latency responses in the ventral posterior medial (VPM) thalamic nucleus following whisker trimming in the adult rat, Physiology-behavior, 92:500-506.
- Aggestam, F. & Cahusac, P.M.B. (2007) Behavioural lateralization of tactile performance in the rat, <u>Physiology & Behavior</u>, **91**:335-339.
- Cahusac, P. M. B. & Wan, H. (2007) Group II metabotropic glutamate receptors reduce excitatory but not inhibitory neurotransmission in rat barrel cortex *in vivo*, <u>Neuroscience</u>, **146**:202-212.
- Braid, L. & Cahusac, P. M. B. (2006) Decreased sensitivity to self-inflicted pain, <u>Pain</u>, **124**:134-139.
- Cahusac, P.M.B. & Senok, S.S. (2006) Metabotropic glutamate receptor antagonists selectively enhance responses of slowly adapting Type I mechanoreceptors, <u>Synapse</u>, **59:**235-242.

- Cahusac, P.M.B., Senok, S.S., Hitchcock, I., Genever, P. & Baumann, K.I. (2005) Are unconventional NMDA receptors involved in slowly adapting type I mechanoreceptor responses?, <u>Neuroscience</u>, **133**:763-773.
- Hitchcock, I., Genever, P. & Cahusac, P.M.B. (2004) Essential components for a glutamatergic synapse between Merkel cell and nerve terminal, <u>Neuroscience Letters</u>, **362**:196-199.
- Fagan, B.M. & Cahusac, P.M.B. (2001) Evidence for glutamate receptor mediated transmission at mechanoreceptors in the skin, <u>NeuroReport</u>, **12**: 341-347.
- Smith, J.L. & Cahusac, P.M.B. (2001) Right-sided asymmetry in sensitivity to tickle, <u>Laterality</u>, **6** (3), 233-238.
- Cahusac, P.M.B., Castro, M.G., Robertson, L. & Lowenstein, P.R. (1998) Electrophysiological evidence against a neurotransmitter role of corticotrophin-releasing hormone (CRH) in primary somatosensory cortex, <u>Brain Research</u>, **793**, 73-78.
- Dolan, S. & Cahusac, P.M.B. (1996) Differential effect of whisker trimming on excitatory and inhibitory transmission in the primary somatosensory cortex of the adult rat in vivo, Neuroscience, **70**, 79-92.
- Cahusac, P.M.B. (1995) Synaptic plasticity induced in single neurones of the primary somatosensory cortex in vivo, <u>Exp. Brain Res.</u>, **107**, 241-253.
- Cahusac, P.M.B., Morris, R. & Hill, R.G. (1995) A pharmacological study of the modulation of neuronal and behavioural nociceptive responses in the rat trigeminal region, <u>Brain Research</u>, **700**, 70-82.
- Wan, H. & Cahusac, P.M.B. (1995) The effects of L-AP4 and O-phospho-l-serine on inhibition in primary somatosensory cortex of the adult rat in vivo, Neuropharmacology, **34**, 1053-1062.
- Cahusac, P.M.B. (1995) Synaptic plasticity induced in single neurones of the primary somatosensory cortex in vivo, <u>Exp. Brain Res.</u>, **107**: 241-253.
- Cahusac, P.M.B. (1994) Cortical layer-specific effects of the metabotropic glutamate receptor agonist 1S,3R-ACPD in rat primary somatosensory cortex in vivo, <u>Europ. J. Neurosci</u>, 6, 1505-1511.
- Taylor, K.E. & Cahusac, P.M.B. (1994) The Effects of the Metabotropic Glutamate Receptor Agonist 1S,3R ACPD on Neurones in the Rat Primary Somatosensory Cortex in vivo, Neuropharmacology, 33, 103-108.
- Cahusac, P.M.B., Rolls, E.T., Miyashita, Y. & Niki, H. (1993) Modification of responses of hippocampal neurons in the monkey during the learning of a conditional response task, <u>Hippocampus</u>, **3**, 29-42.
- Rolls, E.T., Feigenbaum, J.D., Cahusac, P.M.B. & Miyashita, Y. (1993) Responses of single neurons in the hippocampus of the macaque related to recognition memory, <u>Exp. Brain Res.</u>, **93**, 299-306,

- Cahusac, P.M.B., Rolls, E.T. & Marriott, F.H.C. (1991) Potentiation of neuronal responses to natural visual input paired with postsynaptic activation in the hippocampus of the awake monkey, <u>Neurosci. Lett.</u>, **124**, 39-43.
- Cahusac, P.M.B., Morris, R., Salt, T.E. & Hill, R.G. (1990) Sensory responses of caudal trigeminal neurons to thermal and mechanical stimuli and their behavioural correlates in the rat, Neuroscience, 36, 543-551.
- Rolls, E.T., Miyashita, Y., Cahusac, P.M.B., Kesner, R.P., Niki, H., Feigenbaum, J. & Bach, L. (1989) Hippocampal neurons in the monkey with activity related to the place in which a stimulus is shown, <u>J. Neurosci.</u>, **9**, 1835-1845.
- Miyashita, Y., Rolls, E.T., Cahusac, P.M.B., Niki, H. & Feigenbaum, J.D. (1989) Activity of hippocampal formation neurons in the monkey related to a conditional spatial response task, J. Neurophysiol., **61**, 669-678.
- Cahusac, P.M.B., Miyashita, Y. & Rolls, E.T. (1989) Responses of hippocampal formation neurons in the monkey related to delayed spatial response and object-place memory tasks, <u>Behav. Brain Res.</u>, **33**, 229-240.
- Cahusac, P.M.B. & Miyashita, Y. (1988) Hippocampal activity related to the processing of single sensory-motor associations, <u>Neurosci. Lett.</u>, **90**, 265-272.
- Morris, R., Cahusac, P.M.B. & Hill, R.G. (1984) The effects of microiontophoretically-applied opioids and opiate antagonists on nociceptive responses of neurones of the caudal reticular formation of the rat, <u>Neuropharmacology</u>, **23**, 497-504.
- Cahusac, P.M.B., Evans, R.H., Hill, R.G. & Rodriguez, R.E. (1984) The behavioural effects of an NMDA receptor antagonist following application to the lumbar spinal cord of the conscious rat, Neuropharmacology, 23, 719-724.
- Cahusac, P.M.B. & Hill, R.G. (1983) Alpha-2 adrenergic receptors on neurones in the region of the lateral reticular nucleus of the rat, <u>Neurosci. Lett.</u>, **42**, 279-284.
- Rodriguez, R.E., Salt, T.E., Cahusac, P.M.B. & Hill, R.G. (1983) The behavioural effects of intrathecally administered [D-Pro, D-Trp]-substance P, an analogue with presumed antagonist actions, in the rat, Neuropharmacology, 22, 173-176.
- Salt, T.E., De Vries, G.J., Rodriguez, R.E., Cahusac, P.M.B., Morris, R. & Hill, R.G. (1982) Evaluation of [D-Pro, D-Trp]-substance P as an antagonist of substance P responses in the rat central nervous system, <u>Neurosci. Lett.</u>, **30**, 291-295.
- Morris, R., Cahusac, P.M.B., Salt, T.E., Morris, R.G. & Hill, R.G. (1982) A behavioural model for the study of facial nociception and the effects of descending modulatory systems in the rat, <u>J. Neurosci. Meth.</u>, **6**, 245-252.

Recent Abstracts

- Al-Ghamdi, B.S., Rohra, D.K., Abuharb, G.A.I., Alkofide, H.A., AlRuwaili, N.S., Shoukri, M.M.
- & Cahusac, P.M.B. (2018) Use of carvedilol is associated with hearing loss, WCP2018 (The 18th World Congress of Basic and Clinical Pharmacology), : https://doi.org/10.1254/jpssuppl.WCP2018.0 PO1-2-20
- Cahusac, P.M.B. (2018) Evidence Based Statistics, Saudi International Medical Education Conference 2018 (SIMEC 2018)
- Alem, M., Alshehri, A., Cahusac, P. & Walters, M. (2015) Effect of xanthine oxidase inhibition on arterial stiffness in patients with chronic heart failure, *Journal of Hypertension*, **33**, Suppl 1:LB01.10 doi: 10.1097/01.hjh.0000467472.13708.50
- Ghawji, M.M., Sajid, M.R., Cahusac, P.M., Sheriff, R.K., Shaikh, A.A. & Khaled M. Alkattan (2015) Evaluation of formal mentoring between faculty and medical students: A Survey of Students and Faculty's Perception of the Mentorship Program at Alfaisal University, AMEE 2015, Abstract: 9EE01
- Banks, RW, Cahusac, PM, Siebrecht, M, Watson, S, Bewick, GS (2013) Novel ex vivo preparation to study afferent response pharmacology of guard hair follicles of hairy skin, *Journal of Investigative Dermatology*, **133**, S82-S82
- Banks, R. W., Cahusac, P. M., Watson, S., Bewick, G. S. (2012) An ex vivo Preparation of Mouse Pinna for Recording Afferent Responses from Guard Hair Follicles of Hairy Skin, Proc Physiol Soc 27, PC264.
- Cahusac, P.M.B. & Senok, S. (2011) Selective decline in slowly adapting type I mechanoreceptors during development in rat sinus hair follicles, in vitro, Proc Physiol Soc 23, PC304.
- Cahusac, P. & Sharma, I. (2008) A comparison of the effects of capsazepine on type I and type II slowly adapting mechanoreceptors in the rat sinus hair follicle, Proc Physiol Soc 11, PC115.
- Senok, S.S. & Cahusac, P.M.B. (2007) Potassium channels modulate the mechanical sensitivity of cutaneous type I slowly adapting mechanoreceptors, Soc. Neurosci. Abstr., 862.5.
- Cahusac, P.M. (2007) A possible role for transient receptor potential (TRP) channels in mechanically evoked responses from slowly adapting type II mechanoreceptors, Proc Life Sciences, PC232.
- Cahusac, P.M. & Noyce, R. (2007) A pharmacological study of slowly adapting mechanoreceptors responsive to cold stimulation, Proc Life Sciences, PC225.
- Cahusac, P.M.B. (2006) Group II mGlu receptor agonist 2R,4R-APDC causes presynaptic depression of excitatory transmission in rat barrel cortex, Proc Physiol Soc 3, C33.
- Cahusac, P.M.B. (2005) Presynaptic depression by metabotropic glutamate receptor agonists in rat somatosensory cortex as assessed by intracellular recordings in vivo, J. Physiol., 567P: PC71.
- Cahusac, P.M.B. & Senok, S.S. (2005) Blockade of metabotropic glutamate receptors enhances rat slowly adapting type I responses in vitro, J. Physiol., 567P: C41.
- Cahusac, P.M.B. & Senok, S.S. (2004) The effects of ionotropic glutamate receptor antagonists on cutaneous slowly adapting type I responses, J. Physiol., 555P: C155.
- Senok, S.S., Genever, P., Cahusac, P.M.B. (2003) Is MK-801 a specific NMDA receptor antagonist? FEPS 2003, Abstract, June 2003.
- Aggestam, F. & Cahusac, P. (2003) The rat's tactile discriminative abilities, British Neuroscience Association, 17: 35.05.
- Senok, S.S., Cahusac, P.M. & Baumann, K.I. (2001) Spontaneous firing in vibrissal type II slowly adapting mechanoreceptors depends on potassium channel activity, Soc. Neurosci. Abstr., 27, 130.1 [PDF]

Senok, S.S., Baumann, K.I. & Cahusac, P.M.B. (2001) MK-801 depression of vibrissal slowly adapting mechanoreceptor responses, J. Physiol., 536P: S196.

Personal interests: Competitive squash and real tennis player. Scottish real tennis open singles champion (2006, 2007, 2009-2021). Antiquarian book collector.