

Michael Jonathan Davies
Professor
Inflammation, Metabolism and Oxidation
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Short presentation

Prof. Michael Davies has pioneered studies on the formation and subsequent reactions of oxidants and other reactive species with proteins, DNA and carbohydrates, and the role of such reactions in biological damage. Recent publications are given at the "Research Output" tab above.

His group have made major contributions to the field of oxidants and oxidative damage. His work on protein modification and the detection and reactions of reactive intermediates is recognised nationally and internationally and has resulted in a number of significant awards, his editorship of journals and his election to a number of prestigious leadership positions in scientific societies.

He has held three prestigious fellowships from the Australian Research Council (QE2, Senior and Professorial), was Director of a (~25 million US\$ per annum turnover) research institute, and led the Sydney (Australia) node of a highly-successful Australian Research Council Centre of Excellence in Free Radical Chemistry and Biotechnology (2006-2013) before moving to the University of Copenhagen, in 2014, after being awarded a Novo Nordisk Laureate research grant. Prof. Davies has published 368 peer-reviewed journal articles, 1 book, 8 edited volumes, 26 book chapters and 8 patents. His work has been cited ~ 22,000 times as of September 2019 (ISI Web of Science). He has an h-index of 71 (ISI Web of Science) and an m-index (h index divided by number of years since first paper published) of ~2. His work is currently attracting > 1000 citations per year and he averages > 60 citations per paper.

Selected Activities and Awards

President-Elect, Society for Free Radical Research - Europe

Michael Jonathan Davies (Participant)

2017 → 2018

Activity: [Other activity types](#) › [Other](#)

Society for Free Radical Research - Europe (External organisation)

Michael Jonathan Davies (Member)

2017 → 2018

Activity: [Membership types](#) › [Membership in committee, council, board](#)

President, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Chair)

2013 → 2014

Activity: [Membership types](#) › [Membership in research network](#)

Redox Biology (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2013 → ...

Activity: [Publication peer-review and editorial work types](#) › [Editor of Research journal](#) › [Research](#)

Biomedical Spectroscopy and Imaging (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2012 → ...

Activity: [Publication peer-review and editorial work types](#) › [Editor of Research journal](#) › [Research](#)

Director and Board Member, Heart Research Institute (External organisation)

Michael Jonathan Davies (Board member)

2012 → 2014

Activity: Membership types › Membership in board of company or public organisation

Toxicology Research (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2012 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

President-Elect, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Chair)

2011 → 2012

Activity: Membership types › Membership in research network

Chairperson, Biomedical Science and Biotechnology Committee, Australian Institute of Nuclear Science and Engineering (External organisation)

Michael Jonathan Davies (Chair)

2010 → 2014

Activity: Membership types › Membership in committee, council, board

Associate Editor, Photochemistry and Photobiology (Journal)

Michael Jonathan Davies (Editor)

1 Jan 2009 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Biochemical Journal (Journal)

Michael Jonathan Davies (Editor)

1 Jan 2009 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Editor in Chief, Free Radical Research (Journal)

Michael Jonathan Davies (Editor)

1 Jan 2009 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Australian Research Council Professorial Fellowship

Michael Jonathan Davies (Award recipient)

2009 → 2013

Activity: Other activity types › Other (prizes, external teaching and other activities) - Prizes, scholarships, distinctions

Vice-President, International EPR Society (External organisation)

Michael Jonathan Davies (Board member)

2008 → 2011

Activity: Membership types › Membership in research network

Secretary-General, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Secretary)

2007 → 2010

Activity: Membership types › Membership in research network

Journal of Clinical Biochemistry and Nutrition (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2006 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Council member, American Society for Photobiology (External organisation)

Michael Jonathan Davies (Board member)

2005 → 2008

Activity: Membership types › Membership in research network

International Committee member, Oxygen Club of California (External organisation)

Michael Jonathan Davies (Member)

2005 → ...

Activity: Membership types › Membership in research network

Management Committee, Australian Research Council Centre of Excellence in Free Radical Chemistry and Biotechnology (External organisation)

Michael Jonathan Davies (Board member)

2005 → 2013

Activity: Membership types › Membership in research network

Chemical Research in Toxicology (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2003 → 2005

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Secretary and Public Officer, Mutagenesis and Experimental Pathology Society Australasia (External organisation)

Michael Jonathan Davies (Secretary)

2003 → 2005

Activity: Membership types › Membership in research network

Council member, Mutagenesis and Experimental Pathology Society Australasia (External organisation)

Michael Jonathan Davies (Board member)

2002 → 2007

Activity: Membership types › Membership in research network

Deputy Director, The Heart Research Institute (External organisation)

Michael Jonathan Davies (Board member)

2001 → 2012

Activity: Membership types › Membership in board of company or public organisation

President, Society for Free Radical Research (Australasia) (External organisation)

Michael Jonathan Davies (Chair)

2001 → 2003

Activity: Membership types › Membership in research network

Spectroscopy (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2001 → 2012

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Australian Research Council Senior Fellowship

Michael Jonathan Davies (Award recipient)

2000 → 2005

Activity: Other activity types › Other (prizes, external teaching and other activities) - Prizes, scholarships, distinctions

Free Radical Biology and Medicine (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2000 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Free Radical Research (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2000 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

President-Elect, Society for Free Radical Research (Australasia) (External organisation)

Michael Jonathan Davies (Chair)

1999 → 2001

Activity: Membership types › Membership in research network

Biochemical Journal (Journal)

Michael Jonathan Davies (Member of Editorial Board)

1 Jan 1998 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Australian Research Council Queen Elizabeth 2 Fellowship

Michael Jonathan Davies (Award recipient)

1996 → 2000

Activity: Other activity types › Other (prizes, external teaching and other activities) - Prizes, scholarships, distinctions

Redox Report (Online) (Journal)

Michael Jonathan Davies (Member of Editorial Board)

1994 → ...

Activity: Publication peer-review and editorial work types › Editor of Research journal › Research

Royal Society of Chemistry, ESR/EPR Specialist Periodical Reports (Journal)

Michael Jonathan Davies (Editor)

1993 → 2008

Activity: Publication peer-review and editorial work types › Editor of Series › Research

Royal Society of Chemistry, ESR Group Committee (External organisation)

Michael Jonathan Davies (Member)

1992 → 1995

Activity: Membership types › Membership in research network

Society for Free Radical Research, European Committee (External organisation)

Michael Jonathan Davies (Board member)

1992 → 1994

Activity: Membership types › Membership in research network

Bibliographic data

Prof. Davies has published 304 peer-reviewed journal articles, 1 book, 8 edited volumes, 25 book chapters and 5 patents. His work has been cited ~ 15,330 times as of March 2015 (ISI Web of Science). He has an h-index of 62 (ISI Web of Science) and an m-index (h index divided by number of years since first paper published) of ~2. His work is currently attracting > 1000 citations per year and he averages > 52 citations per paper.

Publications (2005 onwards only)

1. **Iodide modulates protein damage induced by the inflammation-associated heme enzyme myeloperoxidase**
Gamon, L. F., Dieterich, S., Ignasiak, M. T., Schrameyer, V. & Davies, M. J., 2020, In : Redox Biology. 28, 12 p., 101331.
2. **Effects of a novel selenium substituted-sugar (1,4-anhydro-4-seleno-d-talitol, SeTal) on human coronary artery cell lines and mouse aortic rings**
Zacharias, T., Flouda, K., Jepps, T. A., Gammelgaard, B., Schiesser, C. H. & Davies, M. J., 5 Sep 2019, In : Biochemical Pharmacology. p. 113631
3. **Iodide modulates myeloperoxidase-derived oxidative damage to extracellular matrix proteins: [Meeting Abstract]**
Gamon, L. F., Ignasiak, M. T., Dieterich, S. D., Sauerland, M. B., Goll, S. T. & Davies, M. J., 1 Aug 2019, In : Free Radical Biology and Medicine. 139, S1, p. S8-S8 2.

4. **Modification of Cys residues in thioredoxin by p-benzoquinone causes inhibition of its catalytic activity and activation of ASK1/p38-MAPK signalling pathway: [Meeting Abstract]**
Shu, N., Hagglund, P. M. & Davies, M., 1 Aug 2019, In : Free Radical Biology and Medicine. 139, S1, p. S9-S9 8.
5. **Modification of selenocysteine residues in thioredoxin reductase and glutathione peroxidase by p-benzoquinone affects protein structure and function: [Meeting Abstract]**
Shu, N. & Davies, M., 1 Aug 2019, In : Free Radical Biology and Medicine. 139, S1, p. S49-S49 168.
6. **1,4-Anhydro-4-seleno-d-talitol (SeTal): a remarkable selenium-containing therapeutic molecule**
Davies, M. J. & Schiesser, C. H., 2019, In : New Journal of Chemistry. 43, 25, p. 9759-9765
7. **3-Hydroxykynurenine bound to eye lens proteins induces oxidative modifications in crystalline proteins through a type I photosensitizing mechanism**
Avila, F., Ravello, N., Zanoocco, A. L., Gamon, L. F., Davies, M. J. & Silva, E., 2019, In : Free Radical Biology and Medicine. 141, p. 103-114
8. **Absolute quantitative analysis of intact and oxidised amino acids by LCMS without prior derivatization: [Meeting Abstract]**
Gamon, L. F. & Davies, M. J., 2019, In : Free Radical Biology and Medicine. 139, S1, p. S25-S25 70.
9. **Characterisation and quantification of protein oxidative modifications and amino acid racemisation in powdered infant milk formula**
Chen, Z., Leinisch, F., Greco, I., Zhang, W., Shu, N., Chuang, C. Y., Lund, M. N. & Davies, M. J., 2019, In : Free Radical Research. 53, 1, p. 68-81
10. **Chlorination and oxidation of the extracellular matrix protein laminin and basement membrane extracts by hypochlorous acid and myeloperoxidase**
Nybo, T., Dieterich, S., Gamon, L. F., Chuang, C. Y., Hammer, A., Hoefler, G., Malle, E., Rogowska-Wrzesinska, A. & Davies, M. J., 2019, In : Redox Biology. 20, p. 496-513
11. **Copper ion / H₂O₂ oxidation of Cu/Zn-Superoxide dismutase: Implications for enzymatic activity and antioxidant action**
Tiwari, M. K., Hägglund, P. M., Møller, I. M., Davies, M. J. & Bjerrum, M. J., 2019, In : Redox Biology. 26, p. 1-15 15 p., 101262.
12. **Effects of Protein-Derived Amino Acid Modification Products Present in Infant Formula on Metabolic Function, Oxidative Stress, and Intestinal Permeability in Cell Models**
Chen, Z., Kondrashina, A., Greco, I., Gamon, L. F., Lund, M. N., Giblin, L. & Davies, M. J., 2019, In : Journal of Agricultural and Food Chemistry. 67, 19, p. 5634-5646
13. **FIBROSIS IS NOT JUST FIBROSIS - TGF-B AND PDGF INDUCE DIFFERENT EXTRACELLULAR MATRIX PROFILE: A MODEL OF DERMAL FIBROBLASTS WHICH MIMICS SYSTEMIC SCLEROSIS POTENTIAL FOR EVALUATION OF ANTI-FIBROTIC COMPOUNDS WITH TRANSLATIONAL BIOMARKERS [Meeting Abstract]**
Juhl, P., Bomdesen, S., Bay-Jensen, A-C., Karsdal, M., Davies, M. J. & Siebuhr, A. S., 2019, In : Annals of the Rheumatic Diseases. 78, S2, p. 448-449 THU0335.
14. **Hypochlorous acid-modified extracellular matrix contributes to the behavioral switching of human coronary artery smooth muscle cells**
Cai, H., Chuang, C. Y., Vanichkitrungruang, S., Hawkins, C. L. & Davies, M. J., 2019, In : Free Radical Biology and Medicine. 134, p. 526-536
15. **Identification and quantification of sites of nitration and oxidation in the key matrix protein laminin and the structural consequences of these modifications**
Lorentzen, L. G., Chuang, C. Y., Rogowska-Wrzesinska, A. & Davies, M. J., 2019, In : Redox Biology. 24, UNSP 101226.
16. **Impact of myeloperoxidase-derived oxidants on vascular smooth muscle cell damage and death in atherosclerosis [Meeting Abstract]**
Flouda, K., Davies, M. & Hawkins, C., 2019, In : Free Radical Biology and Medicine. 139, S1, p. S23-S24 64.
17. **Iodide anions show protective and damaging effects in oxidation of amino acids, peptides and proteins: [Meeting Abstract]**
Ignasiak-Kciuk, M., Shashikadze, B., Frackowiak, K., Gamon, L. F., Davies, M. J. & Marciniak, B., 2019, In : Free Radical Biology and Medicine. 139, S1, p. S30-S30 89.
18. **Oxidation of human plasma fibronectin by inflammatory oxidants perturbs endothelial cell function**
Vanichkitrungruang, S., Chuang, C. Y., Hawkins, C. L., Hammer, A., Hoefler, G., Malle, E. & Davies, M. J., 2019, In : Free Radical Biology and Medicine. 136, p. 118-134
19. **Peroxyl radicals induce oxidative crosslinking of superoxide dismutase 1 through self-reaction of protein radicals [Meeting Abstract]**
Escobar, E., Fuentes-Lemus, E., Figueroa, J. D., Fuentealba, D., Denicola, A., Alvarez, B., Leinisch, F., Davies, M. J. & Lopez-Alarcon, C., 2019, In : Free Radical Biology and Medicine. 139, S1, p. S21-S21 53.

20. **Personalized nutrition in ageing society: redox control of major-age related diseases through the NutRedOx Network (COST Action CA16112)**
Tur, J. A., Jacob, C., Chaimbault, P., Tadayyon, M., Richling, E., Hermans, N., dos Santos, C. N., Diederich, M., Giblin, L., Elhabiri, M., Gaucher, C., Andreoletti, P., Fernandes, A., Davies, M., Bartoszek, A. & Cherkaoui-Malki, M., 2019, In : Free Radical Research.
21. **Quantification of carbonate radical formation by the bicarbonate-dependent peroxidase activity of superoxide dismutase 1 using pyrogallol red bleaching**
David Figueroa, J., Fuentes-Lemus, E., Dorta, E., Melin, V., Cortes-Rios, J., Faundez, M., Contreras, D., Denicola, A., Alvarez, B., Davies, M. J. & Lopez-Alarcon, C., 2019, In : Redox Biology. 24, UNSP 101207.
22. **Reaction of quinones with proteins: Kinetics of adduct formation, effects on enzymatic activity and protein structure, and potential reversibility of modifications**
Shu, N., Lorentzen, L. G. & Davies, M. J., 2019, In : Free Radical Biology and Medicine. 137, p. 169-180
23. **Riboflavin-induced Type 1 photo-oxidation of tryptophan using a high intensity 365 nm light emitting diode**
Silva, E., Barrias, P., Fuentes-Lemus, E., Tirapegui, C., Aspee, A., Carroll, L., Davies, M. J. & Lopez-Alarcon, C., 2019, In : Free Radical Biology and Medicine. 131, p. 133-143
24. **Tempus fugit horizontal ellipsis**
Davies, M., 2019, In : Free Radical Research. 53, 1, p. 1-1
25. **Whey proteins: targets of oxidation, or mediators of redox protection**
Giblin, L., Yalcin, A. S., Bicim, G., Kramer, A. C., Chen, Z., Callanan, M. J., Arranz, E. & Davies, M. J., 2019, In : Free Radical Research. 17 p.
26. **Chlorination and oxidation of human plasma fibronectin by myeloperoxidase-derived oxidants, and its consequences for smooth muscle cell function**
Nybo, T., Cai, H., Chuang, C. Y., Gamon, L. F., Rogowska-Wrzesinska, A. & Davies, M. J., Oct 2018, In : Redox Biology. 19, p. 388-400
27. **Structural and functional changes in RNase A originating from tyrosine and histidine cross-linking and oxidation induced by singlet oxygen and peroxy radicals**
Leinisch, F., Mariotti, M., Haggglund, P. & Davies, M. J., Oct 2018, In : Free Radical Biology and Medicine. 126, p. 73-86
28. **Aggregation of alpha- and beta- caseins induced by peroxy radicals involves secondary reactions of carbonyl compounds as well as di-tyrosine and di-tryptophan formation**
Fuentes-Lemus, E., Silva, E., Barrias, P., Aspee, A., Escobar, E., Lorentzen, L. G., Carroll, L., Leinisch, F., Davies, M. J. & Lopez-Alarcon, C., 20 Aug 2018, In : Free Radical Biology and Medicine. 124, p. 176-188
29. **alpha- and beta-casein aggregation induced by riboflavin-sensitized photo-oxidation occurs via di-tyrosine cross-links and is oxygen concentration dependent**
Fuentes-Lemus, E., Silva, E., Leinisch, F., Dorta, E., Lorentzen, L. G., Davies, M. J. & Lopez-Alarcon, C., 1 Aug 2018, In : Food Chemistry. 256, p. 119-128
30. **Effects of a novel selenosugar on primary human vascular cells, mouse aortic rings and atherosclerosis in apoE^{-/-} mice: [Meeting Abstract]**
Zacharias, T., Flouda, K., Jepps, T., Christoffersen, C., Pedersen, T., Gammelgaard, B., Schiesser, C. & Davies, M., 20 May 2018, In : Free Radical Biology & Medicine. 120, S1, p. S68-S68 P-79.
31. **Superoxide radicals react with peptide-derived tryptophan radicals with very high rate constants to give hydroperoxides as major products**
Carroll, L., Pattison, D. I., Davies, J. B., Anderson, R. F., Lopez-Alarcon, C. & Davies, M. J., Apr 2018, In : Free Radical Biology and Medicine. 118, p. 126-136
32. **Synthesis and antioxidant capacity of novel stable 5-tellurofuranose derivatives**
Borges, E. L., Ignasiak, M. T., Velichenko, Y., Perin, G., Hutton, C. A., Davies, M. J. & Schiesser, C. H., 25 Mar 2018, In : Chemical Communications. 54, 24, p. 2990-2993
33. **Exposure of tropoelastin to peroxyxynitrous acid gives high yields of nitrated tyrosine residues, di-tyrosine cross-links and altered protein structure and function**
Degendorfer, G., Chuang, C. Y., Mariotti, M., Hammer, A., Hoefler, G., Häggglund, P., Malle, E., Wise, S. G. & Davies, M. J., 1 Feb 2018, In : Free Radical Biology & Medicine. 115, S1, p. 202-214 13 p.
34. **Analysis of extracellular matrix protein chlorination and oxidation by mass spectrometry: [Meeting Abstract]**
Nybo, T., Davies, M. J. & Rogowska-Wrzesinska, A., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S56-S57 P-40.
35. **Cardiac spheroid co-cultures as a novel in vitro model to study human heart microenvironment**
Polonchuk, L., Chabria, M., Badi, L., Hoflack, J-C., Davies, M. J., Figtree, G. & Gentile, C., 2018, In : Journal of Pharmacological and Toxicological Methods. 93, p. 167 1 p.
36. **Characterization and quantification of protein oxidative modifications and amino acid racemization in powdered infant milk formula: [Meeting Abstract]**
Chen, Z., Leinisch, F., Greco, I., Zhang, W., Shu, N., Chuang, C. Y-N., Lund, M. N. & Davies, M. J., 2018, In : Free Radical Biology and Medicine. 120, Supplement 1, p. S47 1 p., P-8.

37. **Chlorination and oxidation of human plasma fibronectin by myeloperoxidase-derived oxidants, and its consequences for smooth muscle cell function: [Meeting Abstract]**
Nybo, T., Cai, H., Chuang, C., Gamon, L., Rogowska-Wrzesinska, A. & Davies, M., 2018, In : Free Radical Biology & Medicine. 120, S1, p. S24-S24 P-41 .
38. **Early events in copper-ion catalyzed oxidation of α -synuclein**
Tiwari, M. K., Leinisch, F., Sahin, C., Møller, I. M., Otzen, D. E., Davies, M. J. & Bjerrum, M. J., 2018, In : Free Radical Biology & Medicine. 121, p. 38-50 13 p.
39. **Effect of free cysteine on the denaturation and aggregation of holo α -lactalbumin**
Nielsen, L. R., Lund, M. N., Davies, M. J., Nielsen, J. H. & Nielsen, S. B., 2018, In : International Dairy Journal. 79, p. 52-61 10 p.
40. **Exposure of tropoelastin to peroxyoxynitrous acid gives high yields of nitrated tyrosine residues, di-tyrosine cross-links and altered protein structure and function: [Meeting Abstract]**
Degendorfer, G., Lorentzen, L. G., Chuang, C. Y., Mariotti, M., Hammer, A., Hoefler, G., Haeggglund, P., Malle, E., Wise, S. & Davies, M. J., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S102-S103 P-192 .
41. **Identification and characterization of protein cross-links induced by oxidative reactions**
Hagglund, P., Mariotti, M. & Davies, M. J., 2018, In : Expert Review of Proteomics. 15, 8, p. 665-681
42. **Influence of O-2 on riboflavin-mediated photo-oxidation of lysozyme: [Meeting Abstract]**
Silva, E., Tirapegui, C., Fuentes-Lemus, E., Barrias, P., Aspee, A., Lorentzen, L. G., Carroll, L., Leinisch, F., Davies, M. J. & Lopez-Alarcon, C., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S58-S59 P-46.
43. **Kinetics and biological consequences of quinone-induced protein adduction: [Meeting Abstract]**
Shu, N., Lorentzen, L. G. & Davies, M. J., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S55-S55 P-34.
44. **Mass-Spectrometry-Based Identification of Cross-Links in Proteins Exposed to Photo-Oxidation and Peroxyl Radicals Using ^{18}O Labeling and Optimized Tandem Mass Spectrometry Fragmentation**
Mariotti, M., Leinisch, F., Leeming, D. J., Svensson, B., Davies, M. J. & Hagglund, P., 2018, In : Journal of Proteome Research. 17, 6, p. 2017-2027
45. **Mechanistic view of iodide in oxidative stress: [Meeting Abstract]**
Kciuk, M. I., Davies, M. J. & Marciniak, B., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S122-S122 P-254.
46. **Modification of the extracellular matrix of the arterial wall by myeloperoxidase contributes to atherosclerosis: [Meeting Abstract]**
Cai, H., Chuang, C. Y. & Davies, M. J., 2018, In : International Journal of Experimental Pathology. 99, 6, p. A24-A24
47. **Nitration alters laminin polymerization: [Meeting Abstract]**
Lorentzen, L. & Davies, M., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S127-S127 P-271.
48. **Role of di-tyrosine and di-tryptophan in alpha- and beta-casein cross-linking triggered by riboflavin-induced photo oxidation and peroxyl radicals: [Meeting Abstract]**
Fuentes-Lemus, E., Silva, E., Barrias, P., Aspee, A., Lorentzen, L., Carroll, L., Leinisch, F., Davies, M. J. & Lopez-Alarcon, C., 2018, In : Free Radical Biology and Medicine. 120, S1, p. S60-S60 P-50 .
49. **Special issue for the International Conference on Electron Paramagnetic Resonance Spectroscopy and Imaging of Biological Systems (EPR-2017)**
Khrantsov, V. V. & Davies, M. J., 2018, In : Free Radical Research. 52, 3, p. 305-306
50. **Formation and detection of oxidant-generated tryptophan dimers in peptides and proteins**
Carroll, L., Pattison, D. I., Davies, J. B., Anderson, R. F., Lopez-Alarcon, C. & Davies, M. J., Dec 2017, In : Free Radical Biology & Medicine. 113, p. 132-142 11 p.
51. **Selenium-containing indolyl compounds: Kinetics of reaction with inflammation-associated oxidants and protective effect against oxidation of extracellular matrix proteins**
Casaril, A. M., Ignasiak, M. T., Chuang, C. Y., Vieira, B., Padilha, N. B., Carroll, L., Lenardão, E. J., Savegnago, L. & Davies, M. J., Dec 2017, In : Free Radical Biology & Medicine. 113, p. 395-405 11 p.
52. **Unrestricted Mass Spectrometric Data Analysis for Identification, Localization, and Quantification of Oxidative Protein Modifications**
Rykær, M., Svensson, B., Davies, M. J. & Häggglund, P., 3 Nov 2017, In : Journal of Proteome Research. 16, 11, p. 3978-3988 11 p.
53. **Peroxyl radical- and photo-oxidation of glucose 6-phosphate dehydrogenase generates cross-links and functional changes via oxidation of tyrosine and tryptophan residues**
Leinisch, F., Mariotti, M., Rykaer, M., López-Alarcón, C., Häggglund, P. & Davies, M. J., Nov 2017, In : Free Radical Biology & Medicine. 112, p. 240-252 13 p.
54. **The peroxyl radical-induced oxidation of Escherichia coli FtsZ and its single tryptophan mutant (Y222W) modifies specific side-chains, generates protein cross-links and affects biological function**
Escobar-Álvarez, E., Leinisch, F., Araya, G., Monasterio, O., Lorentzen, L. G., Silva, E., Davies, M. J. & López-Alarcón, C., Nov 2017, In : Free Radical Biology and Medicine. 112, p. 60-68 9 p.

55. **Cardiac spheroids as promising in vitro models to study the human heart microenvironment**
Polonchuk, L., Chabria, M., Badi, L., Hoflack, J.-C., Figtree, G. A., Davies, M. J. & Gentile, C., 1 Aug 2017, In : Scientific Reports. 7, 12 p., 7005.
56. **Regulation and control of nitric oxide (NO) in macrophages: Protecting the "professional killer cell" from its own cytotoxic arsenal via MRP1 and GSTP1**
Kovacevic, Z., Sahni, S., Lok, K. H., Davies, M. J., Wink, D. A. & Richardson, D. R., May 2017, In : B B A - Reviews on Cancer. 1861, 5 Pt A, p. 995-999 5 p.
57. **The structure of *Lactococcus lactis* thioredoxin reductase reveals molecular features of photo-oxidative damage**
Skjoldager, N., Blanner Bang, M., Rykaer, M., Björnberg, O., Davies, M. J., Svensson, B., Harris, P. & Hägglund, P., Apr 2017, In : Scientific Reports. 7, 10 p., 46282.
58. **A biotin enrichment strategy identifies novel carbonylated amino acids in proteins from human plasma**
Havelund, J. F., Wojdyla, K. I., Davies, M. J., Jensen, O. N., Møller, I. M. & Rogowska-Wrzęsinska, A., 6 Mar 2017, In : Journal of Proteomics. 156, p. 40-51 12 p.
59. **Protein cysteine oxidation in redox signaling: Caveats on sulfenic acid detection and quantification**
Forman, H. J., Davies, M. J., Krämer, A. C., Miotto, G., Zaccarin, M., Zhang, H. & Ursini, F., 1 Mar 2017, In : Archives of Biochemistry and Biophysics. 617, p. 26-37 12 p.
60. **1,4-Anhydro-4-seleno-d-talitol (SeTal) protects endothelial function in the mouse aorta by scavenging superoxide radicals under conditions of acute oxidative stress**
Ng, H. H., Leo, C. H., O'Sullivan, K., Alexander, S.-A., Davies, M. J., Schiesser, C. H. & Parry, L. J., Mar 2017, In : Biochemical Pharmacology. 128, p. 34-45 12 p.
61. **Catalytic oxidant scavenging by selenium-containing compounds: Reduction of selenoxides and N-chloramines by thiols and redox enzymes**
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Activities

President-Elect, Society for Free Radical Research - Europe

Michael Jonathan Davies (Participant)
2017 → 2018

Society for Free Radical Research - Europe (External organisation)

Michael Jonathan Davies (Member)
2017 → 2018

President, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Chair)
2013 → 2014

Redox Biology (Journal)

Michael Jonathan Davies (Member of Editorial Board)
2013 → ...

Biomedical Spectroscopy and Imaging (Journal)

Michael Jonathan Davies (Member of Editorial Board)
2012 → ...

Director and Board Member, Heart Research Institute (External organisation)

Michael Jonathan Davies (Board member)
2012 → 2014

Toxicology Research (Journal)

Michael Jonathan Davies (Member of Editorial Board)
2012 → ...

President-Elect, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Chair)
2011 → 2012

Chairperson, Biomedical Science and Biotechnology Committee, Australian Institute of Nuclear Science and Engineering (External organisation)

Michael Jonathan Davies (Chair)
2010 → 2014

Associate Editor, Photochemistry and Photobiology (Journal)

Michael Jonathan Davies (Editor)
1 Jan 2009 → ...

Biochemical Journal (Journal)

Michael Jonathan Davies (Editor)
1 Jan 2009 → ...

Editor in Chief, Free Radical Research (Journal)

Michael Jonathan Davies (Editor)
1 Jan 2009 → ...

Australian Research Council Professorial Fellowship

Michael Jonathan Davies (Award recipient)
2009 → 2013

Vice-President, International EPR Society (External organisation)

Michael Jonathan Davies (Board member)
2008 → 2011

Secretary-General, Society for Free Radical Research International (External organisation)

Michael Jonathan Davies (Secretary)
2007 → 2010

Journal of Clinical Biochemistry and Nutrition (Journal)

Michael Jonathan Davies (Member of Editorial Board)
2006 → ...

Council member, American Society for Photobiology (External organisation)

Michael Jonathan Davies (Board member)

2005 → 2008

International Committee member, Oxygen Club of California (External organisation)

Michael Jonathan Davies (Member)

2005 → ...

Management Committee, Australian Research Council Centre of Excellence in Free Radical Chemistry and Biotechnology (External organisation)

Michael Jonathan Davies (Board member)

2005 → 2013

Chemical Research in Toxicology (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2003 → 2005

Secretary and Public Officer, Mutagenesis and Experimental Pathology Society Australasia (External organisation)

Michael Jonathan Davies (Secretary)

2003 → 2005

Council member, Mutagenesis and Experimental Pathology Society Australasia (External organisation)

Michael Jonathan Davies (Board member)

2002 → 2007

Deputy Director, The Heart Research Institute (External organisation)

Michael Jonathan Davies (Board member)

2001 → 2012

President, Society for Free Radical Research (Australasia) (External organisation)

Michael Jonathan Davies (Chair)

2001 → 2003

Spectroscopy (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2001 → 2012

Australian Research Council Senior Fellowship

Michael Jonathan Davies (Award recipient)

2000 → 2005

Free Radical Biology and Medicine (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2000 → ...

Free Radical Research (Journal)

Michael Jonathan Davies (Member of Editorial Board)

2000 → ...

President-Elect, Society for Free Radical Research (Australasia) (External organisation)

Michael Jonathan Davies (Chair)

1999 → 2001

Biochemical Journal (Journal)

Michael Jonathan Davies (Member of Editorial Board)
1 Jan 1998 → ...

Australian Research Council Queen Elizabeth 2 Fellowship

Michael Jonathan Davies (Award recipient)
1996 → 2000

Redox Report (Online) (Journal)

Michael Jonathan Davies (Member of Editorial Board)
1994 → ...

Royal Society of Chemistry, ESR/EPR Specialist Periodical Reports (Journal)

Michael Jonathan Davies (Editor)
1993 → 2008

Royal Society of Chemistry, ESR Group Committee (External organisation)

Michael Jonathan Davies (Member)
1992 → 1995

Society for Free Radical Research, European Committee (External organisation)

Michael Jonathan Davies (Board member)
1992 → 1994