

Sue Bowen, PhD

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ACADEMIC ACHIEVEMENT

PhD, Bioinformatics and Molecular Biology, University of Bath, 2001.

MSc, Biochemistry, Universities of Leicester and Nottingham, 1997.

BSc (Hons), Genetics, University of Wales, College Cardiff, 1995.

Specialized Fields Biochemistry; Bioinformatics; Cancer Management and Palliative Care; Cell Biology; Crop Research and Integrated Pest Management; DNA Repair Systems; Developmental Biology (plants and lower vertebrates); Entomology; Evolution; Genetics (microbial, lower vertebrate, and mammalian); Microbiology; Neurobiology; Protein Characterization and Interactions; Signal Transduction; Stress Biology (microbiological, plants, and aquatic environments); Virology.

Professional Summary I am a qualified freelance STM copy-editor and writer with more than 3 years of experience. I have edited over 1000 articles in several formats including LaTeX in both UK and US English. I also endeavour to be supportive and considerate when communicating with authors and publishers. Before becoming a research scientist and editor, I worked in-house to produce camera-ready copy and typesetting for publishers, institutions, and commercial printers. I have held postdoctoral positions at the Universities of Bristol, Leicester, and Bath on projects involving signal transduction, DNA repair, and protein evolution. I also maintain a research newsfeed for a cancer charity.

Published Papers

Bowen S. Protein function influences the frequency of encoded regions containing variable number tandem repeats and unique interactions. 2012; arXiv: 1209.5760[q-bio.GN].

Klewpatinond M, Davies P, Bowen S, Brown DR, Viles JH. De-convoluting the Cu(II) binding modes of full-length prion protein. *J. Biol. Chem.* 2008; 283: 1870–1881.

Bowen S, Wheals AE. Ser/Thr-rich domains are associated with genetic variation and morphogenesis in *Saccharomyces cerevisiae*. *Yeast.* 2006; 23: 633–640.

Bowen S, Wheals AE. Evidence that protein expansion and contraction is partly owing to pre-meiotic mutational events. *Mol. Biol. Evol.* 2006; 23: 1339–1340.

Bowen S, Roberts C, Wheals AE. Patterns of polymorphism and divergence in stress-related yeast proteins. *Yeast.* 2005; 22: 659–668.

Bowen S, Wheals AE. Localisation of Sed1p in the cell wall of *Saccharomyces cerevisiae* involves *KRE6*. *FEMS Yeast Res.* 2004; 4: 731–735.

Mannazzu I, Simonetti E, Marinangeli P, Guerra E, Budroni M, Thangavelu M, Bowen S, Wheals AE, Clementi F. *SED1* gene length and sequence polymorphisms in feral strains of *Saccharomyces cerevisiae*. *Appl. Environ. Microbiol.* 2002; 68: 5437–5444.

Thangavelu M, Diver J, Bowen S, Wheals AE. Genome-wide PCR for rapid identification of *Saccharomyces cerevisiae* and detection of polymorphisms. *Curr. Genetics.* 1999; 35, 372.

Dissertations and Theses

Bowen S. Stress and stationary phase characteristics in cell wall defective strains of *Saccharomyces cerevisiae*. PhD thesis, University of Bath, 2000.

Bowen S. Hydrodynamic characterization of β -lactoglobulin and its association with κ -casein. MSc thesis, University of Leicester, 1996.

Bowen S. Evaluation of drug toxicity in a Ca-alginate encapsulated controlled-release systems. MSc thesis, Zeneca industrial placement, University of Leicester, 1996.

PROFESSIONAL DEVELOPMENT

Editing for Science Journals. SfEP workshop, Holloway University, 2014.

Proofreading and Copyediting (CEU certificate). IACET accredited, 2014.

Business Management (SFEDI award). Bristol Enterprise Centre, 2013.

Next-Generation Sequencing (EMBL-EBI certificate). Sanger Institute, Cambridge, 2012.

Biocomputing and Data Management. University of London, 2011.

Policy Design and Development. Centre for Parliamentary Studies, Westminster, 2008.

Workplace Mediation (Mediation Practitioners certificate). Law Society accredited, 2007.

HTML and Web Site Development (NCFE certificate). College of Bristol, 2001.

Information Technology, Business Administration (RSA Diploma, Stage I & II). ITeC, 1992.

Photography (City & Guild certificate). Cardiff Institute of Higher Education, 1991.

Professional Memberships: The European Association of Science Editors.

RESEARCH KNOWLEDGE AND PRACTICAL SKILLS

Computing and Data Analysis Programming in computer languages (e.g., Perl, Java); Data management; Sequence analysis and phylogenetic programmes (e.g., MySQL, R, MEGA, IGV, Cytoscape); Analysis of genomic, phenotypic and expression databases; Genome-wide association, proteomics, transcriptomics and microarray studies; Next-generation sequence analysis (eg., FASTQ-Sanger/Illumina/Solexa/CS); Bowtie, Velvet, Samtools to analyze ChIP- and RNA-Seq; Database Modelling/Creation; Structural and differential modelling of macromolecular dynamics and biological trends; Web-page creation. Markup language (e.g., HTML, XML); UNIX/LINUX; PHP & Joomla.

Molecular Techniques Yeast tri- and two-hybrid analysis of protein interactions using Invitrogen Gateway technology and LexA based systems; Cloning, transformation and plasmid isolation in yeast and *E. coli*; Polymerase chain reaction techniques including site-directed mutagenesis and gene replacement; DNA electrophoresis, restriction/amplified fragment length polymorphism and randomly amplified polymorphic DNA; Southern blotting; Protein tagging by inserting DNA into specialized vectors and by site-directed mutagenesis; DNA extraction, purification and sequencing.

Protein Purification and Characterization Techniques Protein expression in *E. coli* and yeast; SDS-PAGE; Protein purification by immobilized metal affinity column, size-exclusion and ion-exchange chromatography; Preparing samples for high-performance liquid chromatography; Macromolecular hydrodynamic techniques to determine protein conformation and interactions, including optical methods by analytical ultracentrifuge, dynamic light scattering, spectroscopy, digital densimetry, viscometry and isothermal titration calorimetry; Immunochemistry: Western blotting using indirect/direct antibodies and detection by chemiluminescence; Co-immunoprecipitation; Large-scale analysis of cell components and characteristics by micro-titre assays.

Publishing Proofreading markup, Microsoft Office editing tools (including macros) and LaTeX; Typesetting (Linotype CRTTronic); Creating camera-ready artwork for screen and lithographic printing; Producing positives, negatives and colour separations on reprographic cameras; Paste-up techniques; Technical drawing; Darkroom photographic printing techniques, 35 mm photography and film development; Digital photography; Animated graphics; Graphic design, editing & publishing software e.g., CorelDraw, Photoshop, GIMP, PerfectIt, Grammarly.

MANUSCRIPT EDITING EXPERIENCE

I have edited manuscripts for authors submitting to the following journals and publishers:

Academic Journals | ACS Macroletters | Acta Biochimica et Biophysica Sinica | Acta Radiologica | Advanced Materials | Agricultural Economics | AIChE Journal | American Association for Cancer Research | American Journal of Nephrology | American Physiological Society | Angewandte Chemie International Edition | Annals of Oncology | Annals of Plastic Surgery | Annals of Surgical Oncology | Annals of Surgical Treatment and Research | Annals of Transplantation | Applied Energy | Applied Environmental Microbiology | Archives of Virology | Arthritis Research and Therapy | ASCE Journals | Asia-Pacific Journal of Human Resources | Asia-Pacific Journal of Clinical Oncology | Australasian Journal of Organisational Psychology | Automation in Construction | Bioinformatics | BMC Complementary and Alternative Medicine | BMC Genetics | BMC Medical Education | BMC Psychiatry | Bone | British Journal of Criminology | British Journal of Surgery | Canadian Journal of Fish Aquascience | NRC Research Press | Cancer Biology and Therapy | Cancer Chemotherapy and Pharmacology | Cancer Science | Cardiovascular Diabetology | Cell | Cell Reports | Cellular Physiology and Biochemistry | Chemical Communications | Chemical Information and Modeling | Child and Family Social Work | Circulation Research | Clinical Endocrinology | Clinical Infectious Diseases | Colorectal Disease | Community Dentistry and Oral Epidemiology | Creativity and Innovation Management | Critical Care | Crustacean Research | CSJ Journals | Current Biology | Current Genetics | Current Opinion in Environmental Sustainability | Development, Growth and Differentiation | Diabetes | Diabetologia | Disaster Medicine and Public Health Preparedness | Diseases of the Colon and Rectum | Drug Metabolism and Disposition | Drug Metabolism and Disposition | Electrochemical Society Transactions | Environmental Health Perspectives | Electrophoresis | Emerald | Empirical Economics | Endocrine | Endocrinology and Metabolism | Energy and Fuels | Energy Efficiency | Entrepreneurship and Regional Development | Environmental Biology of Fishes | Environmental Toxicology and Pharmacology | European Child and Adolescent Psychiatry | European Journal of Human Genetics | European Journal of Neurology | European

Journal of Surgical Oncology | European Spine Journal | Experimental Cell Research | FEMS Microbiology Ecology | FEMS Microbiology Ecology | FEMS Yeast Research | Fish and Shellfish Immunology | Frontiers in Cellular and Infection Microbiology | G3: Genes Genomes Genetics | Genes and Genomics | Genetics in Medicine | Genome | Glia | Haematologica | Health and Social Care in the Community | Health Policy | Heart and Circulatory Physiology | Human Molecular Genetics | Human Mutation | Immunology | International Journal of Applied Sport Science | Internal Medicine | International Journal for Quality in Health Care | International Journal of Food Microbiology | International Journal of Mechanical Sciences | International Journal of Nursing Studies | International Journal of Social Psychiatry | International Review for the Sociology of Sport | JAMA Otolaryngology–Head and Neck Surgery | Journal of the American Medical Directors Association | JBI Database of Systematic Reviews and Implementation Reports | Journal of Chemical Engineering of Japan | Journal of Clinical Endocrinology and Metabolism | Journal of Adolescence | Journal of Applied Research in Intellectual Disabilities | Journal of Biological Chemistry | Journal of Biomedical Materials Research | Journal of Cancer | Journal of Cellular Biochemistry | Journal of Chromatographic Science | Journal of Clinical Investigation | Journal of Clinical Oncology | Journal of Clinical Periodontology | Journal of Construction Engineering and Management | Journal of Economic Behavior and Organization | Journal of Endovascular Resuscitation and Trauma Management | Journal of Fish Biology | Journal of General Virology | Journal of Hematology and Oncology | Journal of Human Nutrition and Dietetics | Journal of Industrial Relations | Journal of Infection | Journal of Integrative Agriculture | Journal of Korean Medical Science | Journal of Liquid Chromatography and Related Technologies | Journal of Neurosurgery | Journal of Pediatric Gastroenterology and Nutrition | Journal of the American Chemical Society | Journal of the Proteome | Journal of Research on Adolescence | Journal of the Science of Food and Agriculture | Journal of Thoracic Oncology | Laboratory Investigation | Marine Biology | Marine Genomics | Materials Chemistry Frontiers | Measurement Science and Technology | Medicine and Health, Rheumatology | MHR: Basic science of reproductive medicine | Microbiology Society Journals | Microporous and Mesoporous Materials | Molecular Biology and Evolution | Molecular Carcinogenesis | Molecular Cell | Molecules | Nanomedicine: Nanotechnology, Biology and Medicine | Nature | Nature Communications | NordStep | Nursing in Critical Care | Obesity Surgery | Occupational Medicine | Oncogene | Oncology Reports | Osteoarthritis and Cartilage | Placenta | Plant and Cell Physiology | Plant Physiology | Plastic and Reconstructive Surgery | PLOS ONE | Physical Medicine and Rehabilitation | Political Psychology | Polymer Chemistry | Polymer Degradation and Stability | Procedia Computer Science | Proceedings of the National Academy of Sciences | Protein Expression and Purification | Quaternary International | Revista Brasileira de Zootecnia | Respiriology | Scandinavian Cardiovascular Journal | Scandinavian Journal of Hospitality and Tourism | Science | Science and Technology of Advanced Materials | Science Total Environment | Scientific Reports | Sense Publishers | Small | Spine | Sport Nutrition and Exercise Metabolism | Springer Books | Stem Cell Reports | Stereotactic and Functional Neurosurgery | Surgery for Obesity and Related Diseases | Telecommunications Policy | The American Journal of Pathology | The Breast | The International Journal of Biochemistry and Cell Biology | The International Society for Microbial Ecology Journal | The Journal of Immunology | The Journal of Mental Health Policy and Economics | The Lancet | The Laryngoscope | Tourism Management Perspectives | Transactions on Biomedical Engineering | Transactions on Internet and Information Systems | Translational and Clinical Pharmacology | Transplant International | Transplantation | Virology Journal | Virus Research | Water Research | Water, Air, and Soil Pollution | Yeast.