



# NEW BIOTECHNOLOGY

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### DESCRIPTION

*New Biotechnology* is the official journal of the [European Federation of Biotechnology](#) (EFB) and is published bimonthly. It covers both the science of **biotechnology** and its surrounding **political, business** and **financial** milieu. The journal publishes peer-reviewed basic research papers, authoritative reviews, feature articles and opinions in all areas of biotechnology. It reflects the full diversity of current **biotechnology science**, particularly those advances in research and practice that open opportunities for exploitation of knowledge, commercially or otherwise, together with news, discussion and comment on broader issues of general interest and concern. The outlook is fully international.

The scope of the journal includes the research, industrial and commercial aspects of biotechnology, in areas such as: Healthcare and Pharmaceuticals; Food and Agriculture; Biofuels; Genetic Engineering and Molecular Biology; Genomics and Synthetic Biology; Nanotechnology; Environment and Biodiversity; Biocatalysis; Bioremediation; Process engineering.

The journal takes a scientific approach to non-scientific issues, and also comments on matters of safety, regulation, international relations, public perceptions, ethical and societal aspects, education, and research funding.

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## GUIDE FOR AUTHORS

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### INTRODUCTION

**Please note: these guidelines apply for all regular and Special Issue papers published within the journal, such as the Biotechnology Annual Reviews Special Issues.**

*New Biotechnology* is a journal covering both science of biotechnology and its surrounding political, business and financial milieu. Taking its lead from biology itself, the journal welcomes papers in the application areas of biotechnology, covering "red", "white", "green", "yellow"; and other frequencies in the biotechnology colour spectrum.

The peer-reviewed research and mini-review section of *New Biotechnology* covers the following core areas: *Molecular intervention* - the use of non-living biological agents of change in biological systems: nucleic acids, proteins, carbohydrates, lipids, derivatives and mimetics of natural molecules. Encompasses interventions in human and veterinary medicine, in plant protection, enzymes in food processing or chemical synthesis/conversion, and other applications. *Cellular interventions* - regenerative medicine (stem cells, tissue engineering, biomaterials); agricultural inocula; process organisms (e.g. the adaptation of eukaryote (mammalian, insect, plant, fungal) or prokaryote cells for the improvement of productivity or substrate range, or biological containment). Includes the whole-organism or part-organism products of molecular or cellular manipulation such as transgenic crops, transgenic animals, human tissues and organs. *Delivery* - delivering the agents of intervention to the site of intervention: Includes biological methods for delivery of treatments and preventions; methods for the delivery of biological agents including macromolecules and cells. Encompasses the delivery of health, industrial, agricultural and environmental agents. *"Omics"* - the physical and biological techniques for capturing organism- or population-wide information; the methods for data storage, retrieval and analysis; the association of "omics" data with physiological or whole organism behaviour; functional genomics (e.g. resequencing, arrays, SAGE, SNP analysis), proteomics (e.g. SPR, NMR, MS, expression arrays), systems biology. *Biochemical and process engineering* - generic advances in the design, handling and operation of controlled cellular cultivation processes, including fermentation and mammalian cell culture. *Detection and sensing* - diagnostics and sensors for biological analytes; biological diagnostics or biological sensors for all analytes. Of particular interest are reporter systems of general utility, and transduction systems of general utility. Includes the identification and detection of biologically important traits and their use in processes such as marker-assisted breeding. *Macromolecular modelling* - the theory: computational methods for understanding molecular form and function, and designing interventions. Includes the handling of "omics" data and the integration of diverse and dispersed data. *Macromolecular construction* - the practice: engineering new or refined functions in biomolecules (including antibodies, enzymes, receptors and other proteins, complex carbohydrates, structural carbohydrates, DNA and RNA). "Engineering" in this context includes pseudonatural processes such as molecular evolution. This category also includes constructions built from the molecule upward (i.e. nanobiotechnology).

*New Biotechnology* publishes the best in the science relevant to biotechnology as well as being a forum for technical and political discussion. The watchword of the journal will be inclusiveness. Rather than allowing the biotechnology edifice to fragment along disciplinary or geographical lines, the journal will build bridges between those working in different scientific and engineering disciplines, and between the scientific/technical domain and those in business, regulation and politics. The journal will be interested in fundamental science and the scientific method, but will focus on advances in knowledge and practice that opens opportunities for exploitation of knowledge, either commercially or otherwise. The journal will take a scientific approach to non-scientific issues, and will comment on scientific and broader issues.

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[5] Cancer Research UK. Cancer statistics reports for the UK, <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>; 2003 [accessed 13 March 2003].

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