

BioJS: an open source standard for biological visualisation

Manuel Corpas¹, Rafael Jimenez², Seth J Carbon³, Alex García⁴, Leyla Garcia², Tatyana Goldberg⁵, John Gomez², Alexis Kalderimis⁶, Suzanna E Lewis³, Ian Mulvany⁷, Aleksandra Pawlik⁸, Francis Rowland², Gustavo Salazar⁹, Fabian Schreiber^{2,10}, Ian Sillitoe¹¹, William H Spooner¹², Anil Thanki¹, José M Villaveces¹³, Guy Yachdav^{5,14,15}, Henning Hermjakob²

¹ The Genome Analysis Centre, Norwich Research Park, Norwich, NR4 7UH, UK

² European Bioinformatics Institute EMBL-EBI, Hinxton, CB10 1SD, UK

³ Lawrence Berkeley National Laboratory, Berkeley, CA, 94720, USA

⁴ School of Library and Information Science, Florida State University, Tallahassee, FL, USA

⁵ TUM, Department of Informatics, Bioinformatics & Computational Biology, 5748 Garching/ Munich, Germany

⁶ Department of Genetics and Cambridge Systems Biology Centre, Cambridge University, Cambridge, CB2 3EH, UK

⁷ eLife, Cambridge, CB2 1JP, UK

⁸ Faculty of Mathematics, Computing and Technology, Open University, UK, Milton Keynes, MK7 6AA, UK

⁹ Computational Biology Group, University of Cape Town, Cape Town, South Africa

¹⁰ The Wellcome Trust Sanger Institute, Hinxton, Cambridge, CB10 1SD, UK

¹¹ Biomolecular Structure and Modelling Group Department of Biochemistry, University College London, London, UK

¹² Eagle Genomics Ltd, Cambridge, CB22 3AT, UK

¹³ Max Planck Institute of Biochemistry, Am Klopferspitz 18, 82152, Germany

¹⁴ TUM Graduate School of Information Science in Health (GSISH), 85748 Garching/Munich, Germany

¹⁵ Biosof LLC, New York, NY, 10001, USA

**Corresponding authors*

manuel.corpas@tgac.ac.uk

hhe@ebi.ac.uk

ABSTRACT

BioJS is a community-based standard and repository of functional components to represent biological information on the web. The development of BioJS has been prompted by the growing need for bioinformatics visualisation tools to be easily shared, reused and discovered. Its modular architecture makes it easy for users to find a specific functionality without needing to know how it has been built, while components can be extended or created for implementing new functionality. The BioJS community of developers currently provides a range of functionality that is open access and freely available. A registry has been set up that categorises and provides installation instructions and testing facilities at <http://www.ebi.ac.uk/tools/biojs/>. The source code for all components is available for ready use at <https://github.com/biojs/biojs>.