

# Katerina Johnson - CV

## PERSONAL DETAILS

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## PROFILE

I am a versatile, energetic and driven individual, combining scientific intellect and creative flair. I thrive under pressure and relish the excitement and challenges of research. My curiosity and love of learning naturally led me to pursue a DPhil on a world-leading graduate programme. My passion for biology stems from its ability to change how we see the world and improve our own health and wellbeing. I also have a keen interest in science communication and the media, including television, since I enjoy conveying my own enthusiasm for science to the public in an engaging and understandable way.

## EDUCATION & QUALIFICATIONS

<b>DPhil Degree</b> 2014-2018	University of Oxford (Pembroke College): Interdisciplinary Bioscience Doctoral Training Partnership (DTP). Research topic: Relationship between the microbiome, brain and behaviour.
<b>BA Degree</b> 2011-2014	University of Oxford (Pembroke College): First Class Honours in Biological Sciences, ranked first in Year 2 Final examinations, second in degree overall and awarded a Gibbs Prize for meritorious work in Biological Sciences.
<b>A Levels</b> June 2011	4 A*s in Biology, Mathematics, Chemistry, Geography (including 100% in Biology and Geography, 100% in 2 Mathematics modules and 100% in a Chemistry module).
<b>GCSEs</b> May 2009	12 A*s in Biology, Chemistry, Physics, Mathematics, English language, English literature, French, Latin, ICT, Geography, Religious Studies, Physical Education (including 100% in English literature and ICT).
<b>Other Qualifications</b>	Advanced OCR Free Standing Mathematics Qualification (A, the highest grade). OCR NQF Vocational Qualification - Level 1+2 Certificate in Young Enterprise (Distinction).

## ACADEMIC AWARDS

- Bioscience Impact Award, Oxford Innovation 2019.
- R. G. Collingwood Prize for exceptional academic achievement & leadership in the University & academic world, Pembroke College 2018.
- Public Engagement & Outreach Award, Doctoral Training Centre 2018.
- Senior Studentship, Pembroke College 2016-2017.
- Project Publication Prizes, Doctoral Training Centre 2016 & 2018.
- Academic Graduate Scholarship, Pembroke College 2014-2018.
- BBSRC Studentship Award, 2014-2018.
- Prestigious Gibbs Prize for meritorious work in Biological Sciences, University of Oxford 2014.
- Finals Prize awarded by Master of Pembroke College 2014.
- Academic Undergraduate Scholarship, Pembroke 2013-2014.
- Governor's Prize for College examinations 2012.
- Silver medal in the British Biology Olympiad 2011.
- One of 3 national prize winners for best A Level practical chemistry investigation 2011.
- Best Biology Student of the Year in Oxfordshire 2010.
- Bronze medal in British Physics Challenge 2009.
- Academic Scholarship for secondary school and prizes for Academic Excellence.

## PUBLICATIONS

- Johnson, K. V.-A. & Foster, K. R. Why does the microbiome affect behaviour? *Nature Reviews Microbiology* 16, 647-655 (2018).  
*Selected to be published in special 15<sup>th</sup> anniversary print issue of Nature Reviews Microbiology and ranked number one out of all articles ever published in this journal by Altmetric impact score, which measures amount of attention received.*
- Johnson, K. V.-A. Gut microbiome composition and diversity are related to human personality traits. *Human Microbiome* 15, 100069 (2019).
- Johnson, K. V.-A. & Burnet, P. W. J. Microbiome: Should we diversify from diversity? *Gut Microbes* 7, 455-458 (2016).
- Johnson, K. V.-A. & Burnet, P. W. J. Opposing effects of antibiotics and germ-free status on neuropeptide systems involved in social behaviour and pain regulation. *BMC Neuroscience* 21, 32 (2020).
- Sarkar, A., Johnson, K. V.-A. et al. Microbial transmission in animal social networks and the social microbiome. *Nature Ecology & Evolution* 4, 1020-1035 (2020).
- Sarkar, A., Johnson, K. V.-A. et al. The role of the microbiome in the neurobiology of social behaviour. *Biological Reviews* (2020).
- Greenhough, B., Johnson, K. V.-A. et al. Setting the agenda for social science research on the human microbiome. *Palgrave Communications* 6, 18 (2020).
- Johnson, K. V.-A. et al. Male great tits assort by personality during the breeding season. *Animal Behaviour* 128, 21-32 (2017).
- Johnson, K. V.-A. & Dunbar, R. I. M. Pain tolerance predicts human social network size. *Scientific Reports* 6, 25267 (2016).  
*Altmetric impact score reached >1500, placing it in top 0.015% of all research ever published globally.*

## MEDIA ENGAGEMENT

- Worldwide media coverage on TV (e.g. Sky News with Kay Burley, ITV News feature, CTV News, BBC TV South Today); on radio (e.g. BBC Radio 4 PM programme, BBC Radio 4 Inside Science, BBC World Service and a range of national and international stations); on podcasts (e.g. Naked Scientists and the most popular UK children's podcast Fun Kids Science Weekly); in all the main national newspapers (e.g. The Times, Telegraph, The i, Guardian etc.) and international newspapers (e.g. Süddeutsche Zeitung, The Australian, The Times of Malta etc.); and in print and online magazines (e.g. The Scientist as Editor's Choice, Time, New Scientist, New Statesman, Huffington Post, Forbes, BBC Future etc.)

- All my research papers rank in top 0.3% of all research ever published globally according to Altmetric impact score which measures amount of attention received from public and media (including social media, news articles and citations).
- Listed as expert for media engagement with the University of Oxford and have acted as reviewer for journals.
- Member of The Presenter Network run by Royal Museums Greenwich for individuals communicating science to the public.
- Selected to represent The Genetics Society to question senior politicians on science policy at the Houses of Parliament.
- TEDx Speaker 2019 with >50,000 views (<https://www.youtube.com/watch?v=cvDaaHG2CME>).
- Regional Finalist of FameLab, the national science communication competition.

## SCIENTIFIC, MEDIA & ENGAGEMENT WORK

<b>Science comm.</b> Nov 2018 to present	<ul style="list-style-type: none"> <li>• Science communicator (both media and public facing) and Research Associate at the University of Oxford.</li> </ul>
<b>Freelance talks</b> Various ongoing	<ul style="list-style-type: none"> <li>• Invited to give numerous talks on the microbiome (usually paid), including to investors, academics at conferences and events for the general public.</li> </ul>
<b>Wellcome Trust Immersive Science</b> Oct-Nov 2019	<ul style="list-style-type: none"> <li>• Helped collaborate on and perform at an immersive science experience for the general public at one of the UK's largest comic con festivals. Adapted how I interacted and answered questions depending on the age range of the groups to ensure both adults and children learnt and were engaged.</li> </ul>
<b>Oxford Sparks</b> Jan-Feb 2018	<ul style="list-style-type: none"> <li>• Worked with University's public engagement arm on a Facebook Live event which I helped to arrange and promote, as well as giving a live interview on the microbiome and responding to questions live from the audience. <a href="https://www.oxfordsparks.ox.ac.uk/content/facebook-live-katerina-johnson">https://www.oxfordsparks.ox.ac.uk/content/facebook-live-katerina-johnson</a></li> </ul>
<b>Guerilla Science</b> June-July 2017	<ul style="list-style-type: none"> <li>• Advised on a public engagement event on the microbiome for the Secret Garden Party festival in Cambridgeshire and invited to speak. Since been invited back to host and speak at future events. <a href="https://www.youtube.com/watch?v=0DkX2n5IAho">https://www.youtube.com/watch?v=0DkX2n5IAho</a></li> </ul>
<b>Gundog Media Ltd &amp; CB Films</b> Feb 2017	<ul style="list-style-type: none"> <li>• Hired as a paid researcher on a bioengineering documentary at the commissioning stage for National Geographic. Researched and summarised cutting-edge science stories and also identified potential contributors. Sourced images and video links and helped set up and format a website encapsulating the documentary proposal. Worked closely in a small team to meet tight deadlines.</li> </ul>
<b>BBC Science</b> Jan-Feb 2017	<ul style="list-style-type: none"> <li>• Worked as part of a team on a three-part TV series 'Secrets of the Human Body', covering the latest science on human biology. Roles included researching science stories and contacting both academics and other potential contributors at various filming locations.</li> <li>• Collaborated with other science teams and gained experience with Horizon, including on shoot and in the edit suite. Acted as a runner on The One Show and hosted celebrities.</li> </ul>
<b>Oxford Scientific Films</b> August 2014	<ul style="list-style-type: none"> <li>• Liaised with Production Coordinator and assisted Edit Producer with scientific research for BBC TV series 'Carol Klein's Plant Odysseys' and also spent a day with the filming crew on shoot.</li> <li>• Subsequently offered temporary paid position to assist with further research for the series.</li> </ul>
<b>Syngenta</b> Sept 2012	<ul style="list-style-type: none"> <li>• Crop Science induction programme covering identification and development of chemicals for sustainable agriculture. Invited back to Syngenta's 'blue skies' research department.</li> </ul>
<b>Gatsby Plant Science Summer School</b> July 2012	<ul style="list-style-type: none"> <li>• Selective course for high-achieving university students to learn recent developments in plant research.</li> <li>• Developed a variety of skills, notably confocal laser scanning microscopy, plant pathology diagnosis, species identification and computational modelling of plant development.</li> </ul>
<b>Cotswold Wildlife Park</b> June/Dec 2009	<ul style="list-style-type: none"> <li>• Highly competitive placement, independently sought. Learnt about biodiversity through conservation, interacted with the public and shadowed their veterinary doctor.</li> </ul>

## KEY SKILLS

<b>IT</b>	<b>Programming</b>	R and basic knowledge of MATLAB, Python and C.
	<b>Statistical software</b>	JMP, SPSS and basic knowledge of PAST.
	<b>Microsoft packages</b>	Proficient user of PowerPoint, Excel, Word and Publisher.
	<b>Bioinformatics</b>	QIIME, Geneious, BLAST, BioEdit and ImageJ.
	<b>Website design</b>	Squarespace and Wix.
<b>Teaching</b>	Fellow of Higher Education Academy, undergraduate tutor, teacher for postgrads and Magdalen CS tutor.	
<b>Communication</b>	Scientific writing and writing for the public, confident public speaker, media interview skills and good French language abilities.	
<b>Research skills</b>	PCR (including real-time), gel electrophoresis, DNA cloning, <i>in situ</i> hybridisation, western blotting, bioinformatics, social network analysis, microscopy, spectrophotometry and dissection.	

## POSITIONS OF RESPONSIBILITY & EXTRA-CURRICULAR ACHIEVEMENTS

<b>Captain of University Challenge Team</b>	Progressed through all three selection rounds and represented Pembroke College as captain of the team.
<b>Vice President of Oxford University Biological Society</b>	Arranged talks with eminent scientists and helped organise events, raising the profile of the society and greatly increasing membership.
<b>Oxford University Athletics Club</b>	Selected for the Blues Team in the Athletics Varsity Match 2012.
<b>Young Enterprise</b>	As IT Director, I won the Cisco Human Networking ICT National Award 2008 and Best Presentation at Young Enterprise County Finals.
<b>Duke of Edinburgh</b>	Gold, Silver and Bronze Awards.
<b>Music</b>	ABRSM Grade 6 merit for violin and Grade 5 merit for theory.

## INTERESTS

I enjoy the competition, dedication and teamwork of sport and have represented my county in netball and South England in athletics. I love using computer software, especially for graphic design and video editing. I am very interested in science communication and promoting public understanding of the life sciences through written, audio and visual media.

## OTHER WORK EXPERIENCE & VOLUNTEERING

<b>Herbert Smith Freehills</b> Dec 2012	<ul style="list-style-type: none"><li>Insight Day for Intellectual Property Rights and the Law relating to scientific inventions.</li></ul>
<b>Google</b> Sept 2012	<ul style="list-style-type: none"><li>1 of 20 selected for their BOLD Immersion Programme (Building Opportunities for Leadership and Development). 1 of 4 participants chosen for their special year-long Mentorship Programme.</li></ul>
<b>Merrill Lynch</b> July 2012	<ul style="list-style-type: none"><li>'Skills for Success' programme, including interactive workshops and team-building exercises.</li></ul>
<b>Oliver Wyman</b> July 2012	<ul style="list-style-type: none"><li>Insight Day for Consultancy, tackling a real case study, followed by presentation of our solutions to Partners.</li></ul>
<b>Citi</b> Mar 2012	<ul style="list-style-type: none"><li>Selected for 3-day 'Women of Tomorrow' programme, offering an insight into Investment Banking and inspiring women to aim high in their careers. Offered fast track for an internship in Trading.</li></ul>
<b>Morgan Stanley</b> July 2011	<ul style="list-style-type: none"><li>Selected for 3-day 'Step In, Step Up' programme, developing financial and analytical skills.</li></ul>
<b>Le Manoir</b> June-July 2009	<ul style="list-style-type: none"><li>Applied to Raymond Blanc's famous restaurant on my own initiative at age 16 and enjoyed working under the chefs' guidance in a pressured environment to exacting standards.</li></ul>
<b>Pets As Therapy (PAT)</b> 2007-2009	<ul style="list-style-type: none"><li>Undertook regular volunteer work visiting a local dementia care home with a PAT dog on a weekly basis. I enjoyed interacting with residents and improving their well-being.</li></ul>