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PhD Studentship, School of Pharmacy & Pharmaceutical Sciences, University of Manchester, UK

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The main aim of this fully-funded 4-year PhD is to develop a new generation of supramolecular materials with desired biocatalytic properties towards biologically significant biomolecules (e.g. RNA).

These new functional materials will provide a basis for generating novel chemotherapeutics, affecting specific messenger RNAs and viral genomic RNAs and could potentially be applicable to <u>biotechnology</u>-derived <u>pharmaceuticals</u> and to the bio-medical healthcare sector. Particular focus will be upon bio-catalytic materials based on peptidyl-oligonucleotide chemical ribonucleases.

The project is multi-disciplinary and will involve synthetic chemistry, peptide and oligonucleotide synthesis and conjugation, molecular modelling, spectroscopic and analytical characterisation as well as some bioassays. The research will be carried out in close collaboration with Solvay, an <u>international</u> industrial group active in chemistry, offering a broad range of products and solutions contributing to improving quality of life. Training would incorporate regular interaction and consultation with Solvay, providing the successful candidate with an opportunity to gain commercially relevant experience.

In addition, further experience of <u>nanotechnology</u> methods and techniques would be provided through the North West <u>Nanoscience</u> Doctoral Training Centre, offering six-months training during the PhD showcasing the breadth and potential of nanoscience research.

This multi-centre project will provide training within the state-of-the-art **School of Pharmacy and <u>Pharmaceutical</u>** <u>Sciences</u> and will be sponsored by Solvay. The 4-year studentship will provide full support for tuition fees and an annual tax-free stipend of £18,590. It will also cover all research expenses, including participation in national and international meetings and conferences. The project is available to UK/EU nationals only due to the nature of the funding and is due to start September 2011.

Given the breadth of nanoscience and <u>pharmaceutical</u> chemistry skills provided, such training would support progression into a variety of career positions within academic or industrial settings involving pharmaceutical sciences, medicinal chemistry, nanoscience or biotechnology. Graduates with skills-sets spanning these areas are rare, so the training would provide a solid platform for career development.

Applicants should hold (or expect to obtain) a minimum upper-second honours degree (or equivalent) in chemistry with previous experience in peptide and oligonucleotide synthesis, <u>organic chemistry</u>, analytical and spectroscopic techniques. They must also be capable of working at the interface between chemistry, biology and nanotechnology. Some experience in <u>computational</u> chemistry would be highly beneficial.

Please direct applications in the following format to Dr Elena Bichenkova (elena.bichenkova@manchester.ac.uk): Academic CV

Official academic transcripts

Contact details for two suitable referees

A personal statement (750 words maximum) outlining your suitability for the study, what you hope to achieve from the PhD and your research experience to date.

Any enquiries relating to the project and/or suitability should be directed to Dr Bichenkova at the address above. Applications are invited up to and including Friday 22 July 2011. Applicants are encouraged to express interest at the earliest opportunity however as candidates will be considered on an ongoing basis.

http://www.pharmacy.manchester.ac.uk/

http://www.solvay.com/EN/Homepage.aspx http://www.nownano.manchester.ac.uk/

Project Title: **Developing a new generation of supramolecular materials with desired biocatalytic properties** Dept/School: **School of Pharmacy & Pharmaceutical Sciences** | <u>University of Manchester</u> Research Group: **Pharmacy & Pharmaceutical Sciences** Project Supervisor(s): **Dr E Bichenkova** Application Deadline: **22 July 2011**

For more information please visit our website: http://scholarshipsbank.com/phd-studentship-school-of-pharmacy-pharmaceutical-sciences-university-of-manchester-uk/

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