

CURRICULUM VITAE

(October, 2007)

PERSONAL INFORMATION

Full name: Abdelkrim RACHEDI
Date of Birth: 10 November 1965
Citizenship: Algerian
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EDUCATION

9/1990 - 9/1994: **Ph.D**, School of Biochemistry and Molecular Biology, University of Leeds, UK.
“**Three-dimensional structural studies on dihydrofolate reductase**”
<http://lib.leeds.ac.uk/search/a?SEARCH=Rachedi>

9/1989 - 6/1990: **IELTS** (International English Language Testing System) by the British Council.

9/1985 - 6/1989: **DES** (Diplome des Etudes Superieur; Diploma of Superior Studies, it's a **Bsc** equivalent) in Biochemistry. University of Es-Senia, Departement de Biochemie, Oran, Algeria.

9/1982 - /6/1985: **Baccalaureate** in science (Mathematics, Physics, Chemistry, and Biology & Arabic, French, English). Abdelmouman High Shool, Saida, Algeria.

EMPLOYMENT HISTORY

02/2006 to date **Manager of the BioInformer nonprofit company**
www.bioinformer.co.uk
Hosted by Streamline servers, UK

08/2005 to 31/01/2006 **Scientific Database Curator (of Protein DataBank, PDB, data)**
European Bioinformatics Institute, Wellcome Trust Genome Campus,
Hinxton,Cambridge. CB10 1SD, UK

08/2002 to 31/07/2005 **Bioinformatics software developer**
European Bioinformatics Institute, Wellcome Trust Genome Campus,
Hinxton,Cambridge. CB10 1SD, UK

09/2000 to 06/2002 **Assistant Professor**
Departement de Biotechnologie, Université des Sciences et de la Technologie
d'Oran, Algerie (Algeria).

Courses given:

- Bioinformatics (post grads and third year students)
- Biostatistics (second year students)

- 09/1998 to 02/2000** **Research Associate**
The Hong Kong Bioinformatics Centre,
Dept. of Biochemistry, Hong Kong University of Science and Technology,
Hong Kong.
- 12/1996 to 09/1998** **a. Research Fellow**
Centre for Gene Analysis and Technology, Faculty of Life Sciences,
National University of Malaysia, Malaysia.
- b. Assistant Lecturer**
Lecturer of a course in Environmental Chemistry, Department of Civil
Engineering, National University of Malaysia, Malaysia.
- 09/1995 to 09/1996** **Lecturer** at the university of Alfatih Aladhim for Medical Sciences,
College of Medical Technology. Messurata, Libya.
- Courses given:**
- Biochemistry (second year students)
- Fundamentals of Medical Chemistry (third year students)
- Medical Chemistry (fourth year students)
- 10/1994 to 07/1995** **Research Assistant:**
Software development in structural biology
School of Biochemistry and Molecular Biology, University of Leeds, UK.

RESEARCH EXPERIENCE

- X-ray crystallographic studies on the mode of binding of the anticancer drug MBP (Methylbenzoprim) and the antibacterial TMP (Trimethoprim) to mouse DHFR (Dihydrofolate Reductase) enzyme.
(done during Ph.D project, see Ph.D thesis <http://lib.leeds.ac.uk/search/a?SEARCH=Rachedi>)
- Homology molecular modelling studies on the malarial dihydrofolate reductase (**during Ph.D course**) and on a *Burkholderia pseudomallei* toxin (during job assignment at the National University of Malaysia, see EMPLOYMENT HISTORY)
- Homology molecular modelling of a novel complex mutation of the OTCase (ornithine transcarbamylase) gene in a Malaysian pedigree which is associated with death in male children (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10533073&query_hl=1&itool=pubmed_docsum, see PUBLICATIONS)
- Agent technology and database programming: Development of Internet-based Integrated Data Retrieval Databases Systems on GABA receptors and related drugs. The project **involved** development of **algorithms** for automatic **data mining**, data **integration**, **intelligent** query reformulation support and **building/updating** of flat-file type of the databases. The system's algorithms have been developed using the PERL language and CGI. (see PUBLICATIONS)

PUBLICATIONS

A. Papers:

- 01.** S. Albeck, P. Alzari, C. Andreini, L. Banci, I. M. Berry, I. Bertini, C. Cambillau, B. Canard, L. Carter, S. X. Cohen, J. M. Diprose, O. Dym, R. M. Esnouf, C. Felder, F. Ferron, F. Guillemot, R. Hamer, M. Ben Jelloul, R. A. Laskowski, T. Laurent, S. Longhi, R. Lopez, C. Luchinat, H. Malet, T. Mochel, R. J. Morris, L. Moulinier, T. Oinn, A. Pajon, Y. Peleg, A. Perrakis, O. Poch, J. Prilusky, **A. Rachedi**, R. Ripp, A. Rosato, I. Silman, D. I. Stuart, J. L. Sussman, J.-C. Thierry, J. D. Thompson,

J.M.Thornton, T. Unger, B. Vaughan, W. Vranken, J. D. Watson, G. Whamond and K. Henrick
SPINE Bioinformatics and data management aspects of high throughput structural biology. *Acta Cryst. 2006 D62*: 1184-1195 (refer to the section "**2.2. The SPINE targets database**". Note that authors are ordered alphabetically)

02. Golovin A., Dimitropoulos D., Oldfield T., **Rachedi A.** and Henrick (2005)
MSDsite: A Database Search and Retrieval System for the Analysis and Viewing of Bound Ligands and Active Sites. *PROTEINS: Structure, Function, and Bioinformatics* 58(1): 190-9.

03. A. Golovin, T. J. Oldfield, J. G. Tate, S. Velankar, G. J. Barton, H. Boutselakis, D. Dimitropoulos, J. Fillon, A. Hussain, J. M. C. Ionides, M. John, P. A. Keller, E. Krissinel, P. McNeil, A. Naim, R. Newman, A. Pajon, J. Pineda, **A. Rachedi**, J. Copeland, A. Sitnov, S. Sobhany, A. Suarez-Uruena, J. Swaminathan, M. Tagari, S. Tromm, W. Vranken and K. Henrick (2004) **E-MSD: an integrated data resource for bioinformatics** *Nucleic Acids Research*, 32 (Database issue), D211-D216.

04. Boutselakis, H., Copeland, J., Dimitropoulos, D., Fillon, J., Golovin, A., Henrick, K., Hussain, A., Ionides, J., John, M., Keller, P., Krissinel, E., McNeil, P., Naim, A., Newman, R., Oldfield, T., Pineda, J., **Rachedi, A.**, Sitnov, A., Sobhany, S., Suarez-Uruena, A., Swaminathan, J., Tagari, M., Tate, J., Tromm, S., Velankar, S. and Vranken, W., (2003)
E-MSD: the European Bioinformatics Institute Macromolecular Structure Database. *Nucleic Acids Research*, 31, 458-462

05. Abdelkrim Rachedi, Michael Rebhan and Hong Xue.
GABAagent: a system for integrating data on GABA receptors. *Bioinformatics*. 2000 Apr;16(4):301-12.

06. Abdelkrim Rachedi, Michael Rebhan and Hong Xue.
Internet-based Integrated Retrieval Information System for GABA receptors. *Society for Neuroscience Abstracts*. Vol.25, Part 2, page1809, Oct. 1999.

07. Khoo ASB, Balraj P, **Rachedi A**, Chin CN, Volpi L.
A novel complex mutation of the OTC (Ornithine Transcarbamylase) Gene in a Malaysian Pedigree. *Human Mutation*. 1999 Nov; 14(5): 448.

URL:http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10533073&query_hl=1&itool=pubmed_docsum (*Note.* Though I am the third author, I am the only author in this paper who did the modeling studies on the enzyme and wrote the related part of the paper)

08. Khoo ASB, Balraj P, **Rachedi A**, Volpi L, Chin CN.
Clinical Correlation of a Novel Mutant Ornithine Transcarbamylase (OTC) Case) Homology Model. In *Proceedings of the 10th National Biotechnology Seminar: Biotechnology towards the next millenium*, pages 26-27. SIRIM Berhad, Malaysia, 27 & 28 October 1998.

09. Khoo ASB, Balraj P, **Rachedi A**, Volpi L, Tan SK, Lim PKC, Chin CN.
Molecular Genetic Investigations of a family with multiple early neonatal deaths. In *Abstracts of the First Scientific Seminar of the National Institutes of Health, Ministry of Health, Malaysia: Research in the New Millenium*, Page 45. Kuala Lumpur, Malaysia, 30-31 October 1998.

10. A. Rachedi, C.E. Sansom, C.R. Groom, J. Thillet, R. Griffin & A.J. Geddes.
The Structure of Mouse Dihydrofolate Reductase in Ternary Complex with NADPH and the Lipophilic Antifolate, Methylbenzoprim. In *Proceedings of the 9th National Biotechnology Seminar: Positioning National R & D in Biotechnology for Global Competitiveness*, pages 96-102. Penang, Malaysia, 23-26 November 1997.

B. Article:

– **Create Advert Panels, Button & Banners**

Tools Guide – MgrCentral Article Guides, Article added on the 29 Jan 2007

<http://mgrcentral.com/a/Top/Shopping/Tools/352413/Create+Advert+Panels%2c+Button+%26+Banners.html?userid=1>

– **SCIENCE**, Vol. 287, No. 5455, Issue of 11 Feb. 2000

NetWatch category slot on the **GABAagent** and **3D-GDD** databases.

<http://www.sciencemag.org/content/vol287/issue5455/index.dtl>

PDF: <http://www.bioinformers.co.uk/GABAing.pdf>

TALKS

Current Target Status and pepc database extensions for Target collection

Macromolecular Structure Database Group Workshops - Spine Workshop – Workpackage 8
Thursday/Friday April 29-30, **2004** Genome Campus, Hinxton Hall, Cambridge,
UK. <http://www.ebi.ac.uk/msd-srv/docs/spine04/abdelkrim.pdf>
http://www.ebi.ac.uk/msd/workshops/spine04/spine04_2.html

Protein Structure Prediction by Homology Modelling. Invited talk at the BIC Workshop on
“BioMolecular Structural Analysis”, 25th-28th March **1998**, National University of Singapore,
Singapore, in conjunction with the *Asia Pacific BioInformatics Network* organization, **APBioNet**:
<http://www.apbionet.org/event/bmsa-Mar98.html> Outlines of talk are found at the BIC page:
<http://www.bic.nus.edu.sg/workshop/Rachedi.htm>

The Use of Computers in Protein Research. Invited course at the NBD & MBCC Workshop on
“Biocomputing for Molecular Biologist”, 8th -23rd Dec. **1997**, Centre for Gene Analysis and
Technology, National University of Malaysia.
(*Note.* The invitation involved designing and delivering the above course)

SHOLARSHIP AND HONORS

- Scholarship from the Algerian Ministry of Higher Education to continue postgraduate studies.
- Honor Certificate for excellence in Biochemistry, from the University of El-Senia, Oran, Algeria.
- Certificate of Appreciation from the National University of Malaysia for setting up and running of a bioinformatics workshop.
- Certificate of Attendance to “**Database Administration and Management Workshop, 27-29 June 2005**”, held by EMBL-EBI, Wellcome Trust Genome Campus, Cambridge, UK.