

BELL RAJ EAPEN

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Online resume: <http://www.gulfdoctor.net/resume.htm>

Nationality: INDIAN **Date of Birth:** 26/05/1973

Statement of Research Interests:

As a dermatologist and bioinformatician, I have a combination of Clinical and Informatics skills and I am predominantly interested in research involving both these skills.

Most of my research involves exploring bioinformatics explanation for clinical scenarios as in my study titled "A new insight into the pathogenesis of Reiter's syndrome using bioinformatics tools" (Int J Dermatol. 2003 Mar; 42(3):242-3 PMID: 12653925). My areas of research interest include Basement membrane zone proteins / Blistering disorders, Melanin synthesis / Pigmentary disorders and immune-mediated / inflammatory disorders of the skin. I prefer these four areas for my bioinformatics research as I have adequate clinical experience in the assessment and management of these disorders. However I have only limited expertise in cutaneous malignancies.

As a bioinformatician I have expertise in sequence analysis, systems biology, structural bioinformatics and I have a basic understanding of molecular modeling and drug designing. I have helped in the evaluation of the structural consequences of keratin mutations for a project at University of New South Wales, Australia on Epidermolysis Bullosa Simplex (In print) and Flux Balance Analysis of cholesterol synthetic pathway in relation with Smith-Lemli-Opitz syndrome. (In print Bioinformation)

My subsequent area of interest is Medical informatics. My computational skills which include database management and web development go beyond the training I have received as a bioinformatician. I also have expertise in Ontology and I have initiated a project called "ONTODerm" which aims at developing domain ontology for dermatology (In Print Dermatology Online Journal).

(<http://www.gulfdoctor.net/ontoderm>). I am also working on developing an intelligent Interface for Sequence analysis using bioperl and prolog. (<http://www.gulfdoctor.net/iisa>). I have a basic understanding of machine learning algorithms. I have developed an online diagnostic tool for dermatology (<http://www.gulfdoctor.net/vd.htm>) and worked on the use of neural network algorithm in the diagnosis of Epidermolysis Bullosa Simplex (Indian J Dermatol Venereol Leprol. 2005 Mar-Apr;71(2):106-8 PMID: 16394384) and Bayesian belief networks in predicting malignancy risk in dermatomyositis. (In Print Indian J Dermatol Venereol Leprol Nov-Dec 2007)

Though I have no wet-lab experience, I have the basic knowledge of Microarray analysis. Recently I have conducted an analysis of expression profile in lesional and non-lesional skin in psoriasis patients based on data available from a public repository. Though I have not undertaken any project involving molecular docking I have the basic knowledge of docking software applications like DOCK and HEX. Presently I am working on combining Microarray analysis, systems biology and pathway simulation in psoriasis.

I have conducted most of my research as an independent researcher with no academic or industry affiliation. However I have worked for two years as an Asst. professor in a Harvard Medical International associated research institute in India. My CV is available online at <http://www.gulfdoctor.net/resume.htm>

Educational Qualifications:

- MBBS Saint John's Medical College, Bangalore. (Bangalore University). INDIA, Internship Completed on 07/06/96
- MD (*Dermatology and Venereology*), Kasturba Medical College, Manipal. (Manipal Academy of Higher Education). INDIA, July 2000
- DNB (*Dermatology and Venereology*) National Board Of Examinations, INDIA, Nov 2000
- Dip. Derm. **Royal College of Physicians And Surgeons of Glasgow, UK**, Oct 2005
- MSc (*Bioinformatics*) Sikkim Manipal University, INDIA, Feb 2005
- PGDBI (*Post Graduate Diploma In Bioinformatics*) Bioinformatics Institute Of India, 2003
- Diploma in *Drug Designing & Patenting* Bioinformatics Institute Of India, Jan 2004

Teaching Experience:

I have worked as an Assistant Professor of Dermatology in a Harvard Medical International associated medical school in India. My duties included taking Theory classes and bed-side clinics for under-graduate and post-graduate students, Out-patient and In-patient management, organising academic conferences and guiding post-graduate research and thesis.

Career Profile:

- **Assistant Professor**, Skin & STD; Sri Ramachandra Medical College and Research institute (DU), INDIA (*A Harvard Medical International associated institution*) April 2001 to Jan 2004.
- **Specialist Dermatologist**, Kaya Skin care Clinic & Prime Medical Centre, Dubai, UAE.

Selected Publications

- Eapen BR. A new insight into the pathogenesis of Reiter's syndrome using bioinformatics tools. *International Journal of Dermatology* March-2003. 42 (3); 242-243.
- Eapen BR. Structural Analysis of staphylococcal enterotoxin G (SEG) and its inactive mutant (SEG L29P) using bioinformatics tools. *Biomedicine* 2002; 22: 89-93.
- Sandra A, Eapen BR, Sheno SD. Effect of thickness of sunscreen on SPF. *British Journal of Dermatology (Suppl)*. 2000; 143 (57); 24

- **Bell Raj Eapen.** Bioinformatics - A Clinician's perspective. *Bioinformatics - India* Apr-jun(2003). 1 (1); 17-18.
- **Bell Raj Eapen, Shrutakirithi D Sheno, Sandra A.** Patch Testing with Shoe series in suspected cases of footwear dermatitis. *Indian J Dermatol* 2001; 46(3): 146-148
- **Bell Raj Eapen, T Salim, S D Sheno.** Clinical Presentation and treatment outcome in Systemic Lupus Erythematosus. (Vol 47 No 3 July - September 2002, *Indian Journal of Dermatology*).
- **Eapen BR.** Data sharing using internet: A suggestion – Letter to Ed. *Indian J Dermatol Venerol Leprol.* 2003;69:194.
- **Eapen BR.** Vit1 gene in Vitiligo – Letter to Ed. *Indian J Dermatol Venerol Leprol.* 2004;70:184.
- **Eapen BR.** Neural network algorithm to predict the severity of Epidermolysis Bullosa Simplex. *Indian J Dermatol Venerol Leprol.* 2005;71:106-8.
- **Bell Raj Eapen, Murali Srinivasan, Geetanjali Bhas.** Antibiotic sensitivity profile of common bacterial pathogens in Dubai – A study of 107 cases. *MEJFM* 2005; 3(4): 28 - 32

Current Research Interests:

Conducts online research using an application conceptualized, designed and maintained by me.
My present projects include

- Domain ontology for dermatology (<http://www.gulfdactor.net/ontoderm>) (In Print Dermatology Online Journal)
- Microarray analysis in psoriasis followed by pathway simulation.
- Designing a dermatological tool for hand held devices.
<http://www.gulfdactor.net/mobile/derm.htm>
- Designing an Online artificial intelligence tool for assistance in dermatological diagnosis.

Academic Reviews:

- Member of the reviewer panel of Indian Journal of Dermatologists, Venereologists and Leprologists.

Awards:

- State award for best research paper in the State conference of Dermatologists in Manipal in the year 2000 (Karnataka-Tamil Nadu branch).

Conferences Attended:

- Attended and presented papers in various national and state level conferences.
- I have successfully completed the online NIH Clinical Research Training course and fulfilled the Training and Education Standard issued by the NIH for conducting clinical research within the intramural research program.

Relevant URLs:

- Home page: <http://www.gulfdactor.net/>
- Up-To-Date Resume: <http://www.gulfdactor.net/derm.htm>
- Publications: <http://www.gulfdactor.net/publi.htm>
- Research: <http://www.gulfdactor.net/research.htm>

IT Skills:

- **Operating System:** Win 2000/XP, Linux.
- **Database:** Oracle (basic knowledge only)
- **Languages:** Visual Basic, Prolog, Java.
- **Web:** php + MySQL, ASP, Java Servlets, PERL, HTML, JavaScript
- **Bioinformatics:** Emboss, DS – Gene (Accelrys).

Selected IT Projects:

- Online appointment management system and doctors directory (PHP / MySQL). An application for doctors to manage appointments online and to save their profile for patients to search. (<http://www.gulfdactor.net/gd>)
- Online clinical trial management system. (ASP with Access DB). An application for doctors to enter clinical trial data and for drug companies to monitor progress. (<http://asp.gulfdactor.net/clinfog/login.htm>)

Selected Clinical Trials

- Leflunamide in the treatment of psoriasis.
- MSM in the treatment of Lichen Amyloidosis.

Referees:

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Email and other contact details: Shru12@yahoo.com, Tel: 00971502766271
Relationship: Professor and my Post Graduate guide in Kasturba Medical college, Manipal, Karnataka, India.
- **Name:** Prof. Anthony Varghese
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Relationship: Collaborator in bioinformatics research.
- **Name:** Dr. P. T. Srinivasan MSc, PhD, MA(P&R), MSc BI,.
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