OMB No. 0925-0001/0002 (Rev. 08/12 Approved Through 8/31/2015)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Gaurang Patel

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Graduate Research Assistant

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

| INSTITUTION AND LOCATION | DEGREE(if applicable) | Completion DateMM/YYYY | FIELD OF STUDY |
| --- | --- | --- | --- |
| ARIBAS, Sardar Patel University, Anand, India | M.S (Distinction) | 12/2012 | Medical Biotechnology |
| University of North Texas Health Science Center, Fort Worth, Texas | Ph.D. | Current  | Biomedical Sciences |

### A. Personal Statement

I am a graduate student in Dr Clark’s lab. My research focuses on Glucocorticoids, Ocular hypertension and Glaucoma. I am interested in understanding molecular mechanisms of glucocorticoids action and glucocorticoid receptor isoforms expression in pathogenesis of glucocorticoid-induced ocular hypertension. The use of glucocorticoids for its anti-inflammatory and immunosuppressive activities in the treatment of ocular disorders can lead to elevated pressure inside the eye leading to glucocorticoid induced ocular hypertension and glaucoma in susceptible individuals. My current work focuses to study effects of alternatively spliced glucocorticoid receptor (GR) isoforms- GRβ on glucocorticoid-induced ocular hypertension in mice and also to delineate role of GR (transactivation or transrepression) responsible for GC-OHT using GRdim mice. The identification of mechanisms will help us tailor individual treatment plans for glucocorticoid therapies to optimize glucocorticoids benefits, while minimizing harmful side effects of glucocorticoids.

When I am not studying, I enjoy running, volunteering, reading and outdoor activities.

### B. Positions and Honors

Positions and Employment

|  |  |
| --- | --- |
| 2012 - 2012 | Research Project Trainee, National Institute for Research in Reproductive Health, Mumbai, India. |
| 2013 – 20142014 -  | Research Associate, National Burns Center, Navi Mumbai, India.Graduate Research Assistant, University of North Texas Health Science Center, TX, United States. |

Honors

|  |  |
| --- | --- |
| 2007-2012 | 2nd rank holder in M.S (Integrated) Medical Biotechnology university rankings, Sardar Patel University, India. |

### C. Contribution to Science

1. As a Research Associate at National Burns Center, I worked:

a) In a Skin Regeneration Lab: I worked on different projects to hasten burn wound healing and can resurface burn wound rapidly with less scarring including use of stem cells to design skin substitute, developing Keratinocyte spray to cover burn wound using patients own cells, and preparation of acellular dermis from cadaver skin (substitute for artificial, costly skin subsitutes). Also, we studied intracellular pathways regulating process of wound healing by measuring levels of cytokines from burned wound biopsy and normal skin biopsy to better understand the process of burn wound healing and design therapeutic approaches to help burned patients.

b) In the Skin Bank: My work included harvesting skin from deceased persons when the call for donation came (24hrs). I completed 105 skin harvests, processed and preserved skin, and performed microbiology testing of skin, as well as quality control of preserved skin.

1. Research Project Trainee, National Institute for Research in Reproductive Health.

I joined Stem Cell Biology Department. I worked on project entitled - “Pluripotent Stem Cells in Adult Normal and Streptozotocin treated Rodent Pancreas”. It helped us to understand the role played by stem cells in diabetic conditions, which is currently a topic of great concern. Our aim was to study these pluripotent stem cells in diabetes using diabetic model of rodent. We were successful in detecting population pluripotent stem cells (PSCs)-Very Small Embryonic-like Stem Cells (VSELs) positive for pluripotent markers Oct4 and Nanog in pancreas of mice and rats.

This project will help in studying neo-formation of β-cells (cells that make insulin) within pancreas that could be a less invasive procedure and of high clinical value. Once developed further it can be very helpful in treatment of diabetes.