## Student's theses: Ms.C.

- 1. Construction of Shiga toxin recombinant B subunit
- 2. Study of Immune response and Apoptosis induction of Shiga toxin
- 3. In vitro and In vivostudy of chimeric recombinant A1-GMCSF
- 4. Molecular Biomarkers of *CK19*, *Her2/neu*, and Mammoglobin in breast cancer
- 5. Verotoxin induction of cytokine expression in cancerous cell Lines by RT-PCR
- 6. Construction of recombinant A subunit of shiga toxin in Baculovirus expression system
- 7. Study of Apoptosis induction by recombinant shiga toxin and its subunits
- 8. Comparison of apoptosis induction by recombinant shiga toxin and O157 strain
- **9.** Study of presence and relation between Virulence factors, Pathogenicity Islands and Phage existance
- **10.** molecular markers CEA, Erb2, Myc, and ki67 in blood and tissue of breast cancer patients
- 11. Comparision of CK19, ER, MUC, and Her2 molecular markers in blood and tissue of breast cancer patients
- **12.** Study and comparison of CK19 molecular marker expression in human breast cancer cell lines
- 13. Study of breast cancer cell lines detection by Quantitative Realtime-PCR
- 14. Flow cytometric analysis of CK19 detection in the breast carcinoma cell lines
- **15.** Comparison methods for separation of Circulating Tumor Cells from blood of breast cancer patients

## Ph.D. Thesis

- **16.** Cloning and expression of A1-GMCSF chimeric protein in E. coli expression system
- **17.** Expression of A1-GMCSF fusion protein in Baculovirus expression system for Biotherapy of Hematologic Malignancies
- 18. Construction, Expression and characterization of recombinant hybrid protein consisting of fliC (flagella) and fimH (type I pili) of uropathogenic Esherichia coli
- **19.** Hemophilus influenza protein D and Por A N. Meningitidis as a vaccine candidate
- 20. Hemophilus influenza protein E and OMV N. Meningitidis as a vaccine candidate
- **21.** Construction, expression and evaluation of recombinant hybrid protein FimH.Mrph as a new vaccine candidate against urinary tract infection caused by uropathogenic E. coli and proteus mirabilis