

# *Burn Research Center --- News Letter*

## **Department of Surgery, UT Southwestern Medical Center, Dallas, Texas**

### **Notes from Program Director**



April 2004



**H**ello from the desk of Jureta Horton – The Burn Center Competitive Renewal application has been completed and is in the hands of the NIH. The focus of the next two months is preparation for the site visit which should occur sometime late spring or early summer. I have scheduled several meetings for the Burn Center PIs, Program Director, and Co-Directors to address questions regarding this site visit.

### **Updates from Center Projects**

**P**roject 1 — Dr. Horton gave two presentations at the Society of Critical Care meeting in Orlando, FL in February and was an invited lecturer at the 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis in Munich, Germany in March. She also presented two papers and chaired a scientific session at the meeting. She presented research from Project 1 at the American Burn Association meeting in Vancouver, British Columbia. Dr. Horton has had a presentation accepted for the May meeting of the Surgical Infection Society. Dr. Horton's group has submitted three abstracts to the Shock Society Meeting to be held in Halifax, Nova Scotia in June.

David Maass hosted STARS students from Namaan Forest High School in February and hosted students from Garland High School in March. This laboratory session provides students with hands lab experience, allowing them to work with contracting isolated cardiomyocytes.

**P**roject 2 — Dr. Giroir is currently serving as Associate Director of DARPA, and in this capacity works in Washington DC part of each week. He spends two days each week in his laboratory at UT Southwestern, ensuring continuation of his research. Dr. Deborah Carlson has assumed the leadership role for Project 2 in the Burn Research Center; she was previously co-investigator, but now will serve as principal investigator while Dr. Giroir will serve as co-investigator. Dr. Carlson and Dr. Monte Willis (NIH trainee in Dr. Giroir's laboratory) presented their work at the 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis in Munich, Germany in March.

**P**roject 3 — December was a particularly exciting month for Dr. Barber, Principal Investigator for Project 3. He and his wife Diane welcomed their first child Will, born on December 27, 2003. In addition Dr. Barber was

promoted to Assistant Professor of Surgery on December 1, 2003.. Congratulations Dr. Barber from the Burn Research Team. Dr. Barber presented his work at the Society of Critical Care meeting in Orlando, FL in February. Audrey Cusano left Project 3 in February, as she is expecting her first child in April. Ellen Chang has joined Project 3 as molecular biologist.

**P**roject 4 — Dr. Yin presented her work on the effect of burn and stress on endothelial cell functions at the University of Geneva Department of Pathology in Geneva Switzerland, at the Ecole Polytechnique Federale de Lausanne Switzerland, at the Institute Pasteur Division of Cardiovascular and Hemodynamics in Paris, and at the Centre National de la Recherche Scientifique in Gif Sur Yvette, France in March.

**P**roject 5 — Lori Schomberg will be leaving Project 5 this summer as she has been accepted for Physician Assistant school in Philadelphia, PA. Good luck Lori! Shung-Ching (Sue Jean) Tsai received an award this spring from the Department of Surgery for 25 years of service at UT Southwestern.

**H**uman Subjects Core — All human IRB protocols for clinical studies to be administered by the Human Subject Core have been approved and are ready for implementation.

## Upcoming Meeting/Abstract Deadlines

### Abstract Deadlines

April 2004	UT Dept Surgery Surgical Forum
September 2004	Critical Care
October 2004	American Burn Association
November 2004	FASEB
December 2004	Surgical Infection Society

### Upcoming Meetings

<i>ABA</i> - Vancouver, British Columbia March 24-26, 2004
<i>SIS</i> - Indianapolis, Indiana April 29 - May 1, 2004
<i>Shock</i> - Casino Nova Scotia Hotel, Halifax, Nova Scotia, June 5-8, 2004

## Publications and Abstracts

### Project 1

#### Abstracts:

1. Sanders B, White DJ, Maass DL, and Horton JW. Does early burn excision attenuate postburn myocardial contractile dysfunction? *Critical Care Medicine* 31 (December):A28, 2003.
3. White DJ, Horton JW, and Maass DL. Selective decontamination of the GI tract improves postburn myocardial function. *Critical Care Medicine* 31(December):A30, 2003.
4. Barber RC, River-Chavez FA, and Horton JW. Hierarchical Bayes resolves the impact of CD14 and TLR4 genotypic interactions on severe sepsis risk after burn injury. *Critical Care Medicine* 31 (December):A50, 2003.
5. Horton JW and Maass DL. Burn injury increases toll-like receptor responsiveness in cardiomyocytes. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
6. Willis M, Carlson D, DiMaio M, White M, White DJ, Horton JW and Giroir BP. Cardiac release of macrophage migration inhibitory factor. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
7. Willis M, Carlson D, DiMaio M, White M, White DJ, Horton JW and Giroir BP. Macrophage migration inhibitory factor (MIF) mediates late cardiac dysfunction following thermal injury. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
8. Carlson D, Willis MS, White DJ, Horton JW and Giroir BP. Matrix metalloproteinases (MMP's) mediate cardiac dysfunction. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
9. Carlson D, Willis MS, Horton JW and Giroir BP. NF-kB dependent genes protect against cardiac myocyte apoptosis during endotoxemia. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
10. Tao W, Maass DL, Johnston WE and Horton JW. Sepsis complicating burn injury potentiates myocardial contractile dysfunction in mice. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
11. Horton JW and DJ White. ICAM-1/P-Selectin in postburn myocardial function. American Burn Association 25(supplement):S91, 2004.

#### Manuscripts:

1. Rothenbach PA, Dahl B, Schwartz JJ, O'Keefe GE, Yamamoto M, Lee WM, Horton JW, Yin HL, and Turnage RH. Recombinant plasma gelsolin infusion attenuates burn-induced pulmonary microvascular dysfunction. *Journal of Applied Physiology* 96:25-31, 2004
2. Horton JW, White, DJ, and Maass DL. Gender-related differences in myocardial inflammatory and contractile responses to major burn trauma. *American Journal of Physiology*, 286:H202-H213, 2004.

### Project 2

#### Abstracts:

1. Willis M, Carlson D, DiMaio M, White M, White DJ, Horton JW and Giroir BP. Cardiac release of macrophage migration inhibitory factor. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
2. Willis M, Carlson D, DiMaio M, White M, White DJ, Horton JW and Giroir BP. Macrophage migration inhibitory factor (MIF) mediates late cardiac dysfunction following thermal injury. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
3. Carlson D, Willis MS, White DJ, Horton JW and Giroir BP. Matrix metalloproteinases (MMP's) mediate cardiac dysfunction. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.
4. Carlson D, Willis MS, Horton JW and Giroir BP. NF-kB dependent genes protect against cardiac myocyte apoptosis during endotoxemia. 6<sup>th</sup> World Congress on Trauma, Shock, Inflammation and Sepsis, Munich Germany, 2004.

### Project 3

#### Abstracts:

1. Barber RC, River-Chavez FA, and Horton JW. Hierarchical Bayes resolves the impact of CD14 and TLR4 genotypic interactions on severe sepsis risk after burn injury. *Critical Care Medicine* 31 (December):A50, 2003.

## **P**roject 5

### **Abstracts:**

1. Murphy, J.T., Schomberg, L., Carlson, P. Organ-Specific Endothelial NF- $\kappa$ B And AP-1 Activation Following Thermal Injury. *Shock*. 19:(abs.), 2003. Presented: Shock Society, Phoenix, AZ, June 2003.
2. Murphy, J.T., Provost, D. Fascial Ultrasound and FAST for Evaluation of Anterior Abdominal Stab Wound Injury. (abs.) Submitted to AAST.

### **Manuscripts:**

1. Sierra R., Brunner, W.C., Murphy, J.T., Dunne, J.B., Scott, D.J. Laparoscopic Marsupialization of a Giant Post-Traumatic Splenic Cyst. Accepted for Publication: *Journal of Laparoscopic Surgery*, 2004.