**NAME:** YAHUAN LOU, Ph.D.

**DATE:** June 7, 2017

PRESENT TITLE: Professor of Immunology

ADDRESS: Department of Diagnostic and Biomedical Sciences

5326 BBSB, School of Dentistry

University of Texas Health Science Center at Houston

1941East Road Houston, TX 77054

Phone: 713-486-4059 Fax: 713-486-0450

E-mail: Yahuan.Lou@uth.tmc.edu

CITIZENSHIP: U.S.A.

**EDUCATION AND TRAINING:** 

03/1978-02/1982: B.S., March '82, Marine Biology, Zhejian College of

Oceanography, Zhejiang, China

09/1983-09/1984: Graduate student, Marine Biology, Shandong College of

Oceanography, Qintao, China.

10/1984-03/1985: Research student, Comparative endocrinology,

Hokkaido University, Hokkaido Japan.

04/1985-03/1990: Ph.D. in Biology, March '90, Graduate School, Hokkaido

University, Hokkaido, Japan.

04/1990-11/1990: Postdoctoral fellow in Molecular Biology, Div.

Developmental Biology, National Institute for Basic

Biology, Okazaki, Japan

11/1990-06/1991: Research Associate in Immunology, Department of

Pathology, Washington University School of Medicine,

St. Louis, MO.

07/1991-10/1993: Research Associate in Immunology, Department of

Pathology, University of Virginia School of Medicine,

Charlottesville, VA

#### **ACADEMIC APPOINTMENT:**

09/01/2006 - present: Professor, Diagnostic Science Department, School of

Dentistry, University of Texas Health Science Center at

Houston, Houston, TX.

01/01/2011 – present: Adjunct Professor, Division of Nephrology,

Baylor College of Medicine, Houston, TX.

07/01/2004 –03/31/2008: Adjunct Associate Professor, Division of Nephrology,

Baylor College of Medicine, Houston, TX.

(BCM#146096)

02/01/2003 – present: Adjunct Professor / Associate Professor, Internal

Medicine, School of Medicine, University of Texas Health Science Center at Houston, Houston, TX.

09/01/2003 – 08/31/2006: Associate Professor with tenure, Diagnostic Science

Department, Dental Branch, University of Texas Health

Science Center at Houston, Houston, TX.

02/15/2003 – present: Honored professorship, Ocean University of Zhejiang,

China

02/02/2000-08/31/2003: Associate Professor, Basic Sciences Department, Dental

Branch, University of Texas Health Science Center at

Houston, Houston, TX.

02/05/2000 – present: Member, Cell Biology Program and Immunology

Program, Graduate School of Biomedical Sciences,

University of Texas at Houston, Houston, TX.

11/1993 – 12/31/1999: Assistant Professor in research, Department of

Pathology, School of Medicine, University of Virginia,

Charlottesville, VA.

#### PROFESSIONAL ORGANIZATIONS

1985-1989: Japanese Society of Aquatic Biology

1987-1992: Pacific Oceania Society of Comparative Endocrinology

1989-1991: American Association for Zoology

1990-1994: American Society for Reproductive Immunology

1999-present: American Association of Immunologist

2006-present American Dental Education Association

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2006-present: International Society of Nephrology

**AWARDS AND HONORS** 

04/1985-03/1990. Monbusho Scholarship, Ministry of Education, Culture

and Science, Japan.

04/1990-11/1990: Fellow, Naito Foundation, Japan.

06/1992: Finalist for Young Investigator Award, IX Ovarian

Workshop, USA

05/1993-10/1998: Fellow, Mellon Foundation, USA,

2003: Dean's Excellence in Teaching, Dental Branch,

University of Texas Health Science Center at Houston.

2005: Finalist for John Freeman Award

2009: Nominee for President's Scholars Award in Research

**UT-HSC** at Houston

#### **EDITORIAL POSITION**

1. Editorial Board Member, Open Autoimmunity Journal, 2008-2012

#### **REVIEWER FOR JOURNALS:**

- 1. Journal of Clinical Investigation
- 2. Journal of Pathology
- 3. Journal of Immunology
- 4. Journal of Leukocyte Biology
- 5. British Journal of Pharmacology
- 6. American Journal of Reproductive Immunology
- 7. American Journal of Pathology
- 8. Archivum Immunologiae et Therapiae Expermentalis
- 9. American Journal of Kidney Disease
- 10. Journal of American Society of Nephrology
- 11. Nephrology Dialysis Transplantation

- 12. Kidney International
- 13. Pediatric Nephrology
- 14. Reproduction
- 15. Reproduction, fertility and development
- 16. Molecular Biology Report
- 17. Medical Science Monitor
- 18. Clinical and Developmental Immunology
- 19. BioMed. Research International
- 20. Molecular Oncology
- 21. PLoS One
- 22. Cellular and Molecular Life Science
- 23. Other on-line journals

#### **GRANT CONSULTANTSHIPS:**

- 1. NIH CSR, USU High Priority Research Panel (2016)
- 2. NIH NICHD Special Emphasis Panel, P01 Ovulation in mammals (2013)
- 3. NIH NICHD Special Emphasis Panel, P01 Ovulation in mammals (2012)
- 4. NIH NICHD Grand Opportunities (GO) RFA, invited grant reviewer (08-04 to 05, 2009)
- 5. Wellcome Trust, UK (2007), ad hoc reviewer
- 6. NIH Study section, NIDDK Special Emphasis Panel (2005)
- 7. Medical Research Council (MRC), UK (2004)
- 8. Health Department of Scotland, UK (2004 and 2005)
- 9. Israel National Science Foundation (2003)
- 10. Member, Search Committee, Kroege Research Scholarship, Houston
- 11. Maryland Technology Development Corporation (TEDCO) (2009)

#### **NATIONAL ORGANIZATION:**

 Member, National Board Exam Test Construction Committee (Part I, Micro – Pathology) (2006-2011), ADA

#### **UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON COMMITTEES:**

1. 03/2013: Reviewer for K14 grant, NIH CCST

2. 09/2012- Member and sub-committee chair, Animal Welfare

Committee UTHSC

3. 09/2006-09/2009: Member and sub-committee chair, Animal Welfare Committee

UTHSC

4. 02/01/2007-01/31/2010: Member, Committee of Engine of Innovation, CCST

5. 01/15/2007: Reviewer for K14 grant, NIH CCST

6. 07/01/2000-2006: Member, Institutional Bio-safety Committee

7. 09/01/2002-08/31/2006:Member, Scientific Merit Review Committee

8. 07/2003: Reviewer for mock NIH grant, Training Course for NIH

grant application

# UNIVERSITY OF TEXAS HOUSTON HEALTH SCIENCE CENTER SCHOOL OF DENTISTRY COMMITTEES:

2016- Member, Outcome Assessment Committee
 2016- Member, Faculty Development and Evaluation

Committee

3. 2012-2015 Member, Research Committee UTSD

4. 2012-2014 Member, New Faculty Member (Craniofacial)

Searching Committee, UTSD

5. 2011-2014 Member, New Faculty (Biomedical) Searching

Committee, Department of Diagnostic and Biomedical

Sciences, UTSD

6. 2010-2011: Member, Biomedical Science Ad Ho Committee,

**UTSD** 

7. 2010-2011: Dental Curriculum Competency mapping Committee

8. 09/01/2004-2009: Member, Faculty Appointment, Promotion and Tenure

Committee.

9. 2003-2004: Faculty Merit Review Committee, Department of

**Diagnostic Sciences** 

10.2002-2003: Faculty Merit Review Committee, Department of

Basic Science.

11.07/01/2000-06/31/2002: Member, Research Committee

12.02/01/2002-09/01/2003: Chair, Student Research Committee

13.2002: Member, Searching Committee for Microbiologist,

Department of Basic Science.

#### **GRADUATE SCHOOL OF BIOMEDICAL SCIENCE COMMITTEE:**

1. 07/01/2001-2005: Member, Curriculum Development Subcommittee, Reproductive

Biology, Cell Biology Program

2. 2003-2006: Interviewer for the Admission Committee

#### SPONSORSHIP OF MEDICAL/DENTAL STUDENTS:

1. 2016 summer: Sponsor for Summer Research dental student

2. 2013 fall: Sponsor for Fall Research Elective **DBEB 5003** (Arsene Hanana)

3. 2013: Sponsor for Summer Research Program (Arsene Hanana)

4. 2007: Sponsor for Summer Research Program (Chad Longley,

Christopher Dauterive)

5. 2006: Sponsor for Summer Research Program (Jonathan McEwen

and Kenneth Sanberg)

6. 2005: Sponsor for Summer Research Program (Anh Bui)

7. 2004: Sponsor for Research Project (Jason Borillo, Baylor)

8. 2004: Sponsor for Summer Research Program (Claudia Guzman and

Anh Bui)

9. 2002: Co-sponsor for Summer Research Program (Miss

Ramichandra)

#### SPONSORSHIP OF CANDIDATES FOR PREDOCTORAL OR MASTER DEGREES:

1. 2008-2009: Sridhar Eswaran, Candidate for MS, University of Texas HSC at

Houston

2. 2007-2008: Neal Horn. Candidate for MS, University of Texas HSC at Houston

3. 2006-2007: Victoria Mdoe. Rotation student, GSBS, University of Texas HSC at

Houston

4. 2004-2009: Julie Robertson. Candidate for Ph.D., GSBS. University of

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Houston Health Science Center at Houston.

5. 2005-2006: Fabian Hosein, DDS. Candidate for MS. University of Texas HSC

at Houston

#### SPONSORSHIP OF POSTDOCTORAL TRAINING:

1. 2012-2015 April Ross, Ph.D. Epitope spreading in autoimmune glomerulonephritis.

- 2. 2010-2011 Yi Huang, MD. Ph.D. IL-33 in ovarian function.
- 3. 2010-2011 David Kagan, MD., Genetics of glomerular fibrosis in rat anti-GBM glomerulonephritis.
- 4. 2002-2005: Cindy Zhou, MD.Ph.D. Role of macrophages in ovarian functions (peer reviewed publications #1,3,4,5; presentations #7, 8; abstract #1).
- 5. 2002-2003: Gustovo Parra, MD. T cell abnormality in hypertension.
- 6. 2003-2004: Justin Merszei, MD. Role of OPN in cresentic lesion of glomerulonephritis. (Presentation in Renal Grand Round in Baylor, 04/2004, peer reviewed publication #5; presentation #1)
- 7. 1997-1998: Wei Sun, Ph.D., Bio-information Department, University of Virginia, Charlottesville, VA ZP3 Contraceptive Vaccine, first author for 1 paper (peer reviewed publication #12)
- 8. 1996-1997: Kwan-Kyu Park, MD.Ph.D., Assistant professor, Medical School Keimyung University, Taegu, 700-310, South Korea Antibody mediated T cell retargeting, co-author for 2 presentation (#14, 15) and 1 paper (peer reviewed publication #10)

#### **MENTOR FOR JUNIOR FACULTY:**

- 1. 2014-2016 Sponsor (R03) and mentor for Junichi Iwata (Grant 101, 2014), DBS, Ph.D., Assistant professor, Department of Diagnostic Sciences, University of Texas School of Dentistry at Houston
- 2. 2013-2014 Ransome van der Hoeven, Ph.D. Assistant professor, Department of Diagnostic Sciences, University of Texas School of Dentistry at Houston
- 3. 2008-2009: Diana Jalal, MD, Clinical Instructor, Renal Division, University of Texas Medical School at Houston.
- 4. 2004-2007: Horacio Adrogue, MD, Assistant Professor, Renal Division, Baylor College of Medicine. .

#### THESIS AND SUPERVISORY COMMITTEE FOR GRADUATE STUDENTS:

1.	07/2007-05/2008	Chair, Advisory Committee (DDS, MS) for <b>Sridhar Eswaran</b> , University of Texas HSC at Houston
2.	07/2006-06/2008	Chair, Advisory Committee (DDS, MS) for <b>Neal Horn</b> , University of Texas Health Science Center at Houston.
3.	07/2004-07/2009	Chair, Advisory Committee (PhD) for <b>Julie Robertson.</b> GSBS, University of Texas Health Science Center at Houston.
4.	10/2005-05/2007	Invited Ph.D. thesis examiner for <b>Joyce Eade</b> , Murdoch University, Perth, Western Australia, 6150, Australia
5.	03/2005-05/2006:	Chair, Advisory Committee (MS program) for <b>Fabian Hosein, DDS</b> . Dental Branch, University of Texas Health Science Center at Houston.
6.	02/2004-2006	Member, Advisory Committee (PhD) for <b>Julia Javarone</b> . GSBS, University of Texas Health Science Center at Houston.
7.	03/2005-05/2006	Member, Advisory Committee (MS program) for <b>Jeff Dykes</b> , Dental Branch, University of Texas Health Science Center at Houston.
8.	02/2004-05/2005:	Member, Advisory Committee (MS program) for <b>Kamrin Danial</b> and <b>George Olfert</b> , University of Texas Health Science Center at Houston.

#### **TEACHING ACTIVITIES:**

#### **Course director:**

2009-2011: Undergraduate Course for Dental Students, University of Texas Houston: **DENF 1551: Microbiology and Immunology** 

#### Lecturer:

2014-	Postgraduate Course for Dental Residents: <b>DBPG0115</b> : A <b>Sciences II</b>	Advanced Basic 13 hours
2013-	Undergraduate course for dental students, University of T DENF 2705 Pathobiology	Texas Houston: 20-25 hours
2013	Undergraduate Course for Dental Students, University of <b>DENF 2701 General Pathology</b>	Texas Houston: 20 hours

2001-2011: Undergraduate Course for Dental Students, University of Texas Houston:

	DENF 1551: Microbiology and Immunology	20-26 hours
2004-2012: L	Jndergraduate Course for Dental Students, University of Texa DENF 2702: General Pathology	as Houston: 2 hours
2009:	Undergraduate Course for Medical students, University of Te School at Houston: <b>Immunology: Clinical Correlation III</b>	exas Medical 1 hour
2006-present	t:Postgraduate Course for Dental Residents: <b>DBPG0115: Adv Basic Sciences II</b>	vanced 13 hours
2007:	Microbiology: Immune Defense Mechanisms (GSBS)	2 hour
2004-2006:	Interdisciplinary Biological Science Review: <b>DENU 2991</b> (B	Bacteriology) 2 hour
2004-2006:	Dental Hygiene Students, University of Texas Houston: <b>General Pathology</b> (immunology)	<b>DHCT 2206:</b> 2 hours
2004-2005:	Graduate Courses for GSBS: <b>GS12 0083:</b> Advanced Biology (Ovary)	Reproductive 8 hours
2001-2005:	Graduate Course for Dental Resident, University of Texas Ho <b>0502: Microbiology and Immunology</b> (bacteriology/	
2000 Fall:	Graduate Courses for Dental Residents: <b>DBPG 0501: Oral</b> (Diag. Microbiol., Head & Neck Infections)	<b>Microbiology</b> 4 hours
1996 Spring	g: Graduate School, Immunology Program, the University <b>Autoimmune Diseases</b> (seminal)	of Virginia: 6 hours

## \*Annual lecture hour summary:

2004 (spring & fall)	54 hours
2005 (spring & fall)	53 hours
2006 (spring & fall)	44 hours
2007 (spring & fall)	43 hours
2008 (spring & fall)	33 hours
2009 (spring & fall)	35 hours
2010 (spring & fall)	30 hours
2011 (spring & fall)	30 hours
2012 (spring)	8 hours
2013 (spring & fall)	28 hours
2014 (Spring &fall)	28 hours
2015 (spring)	8 hours

#### **EXTRAMUAL GRANT SUPPORT:**

#### A. Active

1. P.I. Yahuan Lou

Source support NIH NIDDK 2R01 DK077857

**Project title**A novel type of dendritic cell in prevention of

glomerulonephritis

**Specific aims:** To investigate a novel dendirtic cell which terminates

autoimmune tissue damage by inducing apoptosis in

tissue -infiltrating auto-reactive T cells.

Annual direct costs/total

\$225,000 with total \$1,236,700

Period covered

04/01/12 - 03/31/16

Role on project: P.I. % effort 45%

2. P.I. Yahuan Lou

Source support NIH NIDDK 3R01DK077857-04A1S1

Project title NIH Research Supplements for Under-represented

Minorities \$171,000

Costs of entire project

**Period covered by award** 03/01/13-04/30/15

Role on project: P.I. % effort 0%

**Specific Aim:** provide an opportunity for Dr. April Ross to persuade

a research career as an independent investigator. .

**B.** Complete:

1. P.I. Sheikh-Hamad, MD

Source and identifying No. NIH/NIDDK R01 DK080306

**Project title:** Stanniocalcin-1, a novel anti-inflammatory protein **Specific Aims:** Using a mouse anti-GBM glomerulonephritis model,

this study is to elucidate mechanism for anti-

inflammatory function of stanniocalcin, with emphasis

on macrophages

Period covered by award

Role on project:

08/01/09-07/31/13 Significant Contributor

% effort 0

2. P.I. Yahuan Lou

Source support NIH NIDDK R01 DK077857

**Project title**A novel type of dendritic cell in prevention of

glomerulonephritis

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**Specific aims:** To investigate a novel dendirtic cell which terminates

autoimmune tissue damage by inducing apoptosis in

tissue -infiltrating auto-reactive T cells.

Annual direct costs/total

Period covered

\$150,000/\$674,063 04/01/08-03/31/12

Role on project: P.I. % effort 30%

3. P.I. Yahuan Lou

Source support NIH NIHDCH R01 HD049613

**Project title** CD8 $\alpha\alpha$ + Cells and Ovarian Functions

**Specific Aim:** To investigate a novel leukocytes in ovaries its role in

ovarian functions such as ovulation.

**Annual direct costs/total** \$167,478/\$1,232,550

**Period covered** 07/01/06-06/30/12

Role on project P.I. % effort 30%

**4. P.I.** Frank Arnett, MD

Source and identifying no: NIH P50 AR054144

Project title Center Research Translation in Sclerodoma: Project

1 Functional Genomics Approach to Systemic

Sclerosis Pathogenesis

Annual costs to my group: \$48,955 (3rd year budget reduced) total \$199,775

Period covered by award 09/01/06-08/31/10 Role on project: Subcontract P.I.

% effort 3%

5. P.I. Yahuan Lou

Source support NIH NIDDK R01DK60029

**Project title**Role of T cells in mediating glomerulonephritis

**Annual direct cost/total** \$146,000/\$ 853,000 **Period covered** 09/01/02-08/31/06

Role on project P.I. % effort 40%

**Specific Aim:** To investigate how antigen specific CD4 T cells

initiate autoimmune anti-GBM GN, and how T cells

target glomerular antigens.

6. P.I. Yahuan Lou

Source support NIH NIDDK DK60029-03S1

Project title NIH Research Supplements for Under-represented

Minorities

Costs of entire project \$98,380

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**Period covered by award** 07/01/04-06/30/06

Role on project: P.I. % effort 0%

**Specific Aim:** provide an opportunity for Lisa Torres to persuade a

medical research career.

7. P.I. Yahuan Lou

Source and identifying no.: NIH NICDH R01HD35993

**Title:** Autoantibody in T-cell mediated autoimmunity

Role on project: P.I. (22%)
Total costs: \$ 650,572

**Period covered by award**: 02/01/99-01/30/05

**Specific Aim:** To investigate role of autoantibody to zona pellucida in T cell mediated organ specific autoimmune ovarian disease. Autoimmune ovarian disease is a known cause for premature ovarian failure.

8. P.I.: K. Storthz

**Source and identifying no:** NIH DE015355-01 (UT-TORCH) **Project title:** Craniofacial-Oral Biology Research

Total direct costs: \$ 145,800

**Period covered by award**: 02/01/99-01/30/05

**Role on project:** Sponsor for of Miss Julie Robertson (0%)

9. P.I. N. Vigneswaran

Source support NIH R03 NIDCR

Project title Role of cystatins in oral cancer metastasis

**Specific Aim:** To test apoptotic pathway in cancer.

Annual direct costs \$50,000

**Period covered by award** 0101/04-01/01/05

Role on project: Co-P.I. % effort 5%

**10.** P.I. George Stancel

Source and identifying no.: NIH 2-T32HD07324-16

Title: Training Program in Mammalian Reproduction

**Role on project:** Sponsor for Dr. Cindy Zhou (0%)

**Dates and** 08/05/02-07/04/04

Direct costs \$ 102.000

**Specific Aim:** Provide post doctoral training in mammalian

reproductive biology national wide.

11. P.I. Yahuan Lou

Source support Depart. Med. Baylor College of Medicine

**Project title**: Minimal change disease: A disorder of cell mediated

immunity (H. Adrogue, MD)

Costs to my group \$26,000

**Period covered** 10/01/04-09/30/05

**Role on project:** P.I. % effort 0%

**Specific Aim:** To identify soluble molecules that damage podocytes and GBM.

**12. P.I.** Rudy Fulton, D.D.S.

Source and identifying no.: CoQT

**Title:** The effect of scaling and root planning, plus local

application of Gingident compared to scaling and root

planning alone

Role on project: Co-Investigator (0%)
Dates and: 09/01/02-08/31/04

total costs of entire project \$7,680

Specific Aim: To investigate whether a new dental product Gingident could improve

inflammation when used in periodontal treatment.

#### C. Submitted / Pending

1. P.I. Yahuan Lou

Source support NIH NIA R01 GA048954

**Project title** IL33 in ovarian tissue integrity and aging

Annual direct costs/ \$235,500
Period covered unknown
Pole on project:

Role on project: P.I. % effort 30%

Status of the application scored but not funded

2. P.I. Yahuan Lou

Source support NIH NIDDK R01 090310

**Project title** Osteopontin in glomerular fibrosis

Annual direct costs/ \$235,500

**Period covered** 10/01/10-09/30/14

Role on project: P.I. % effort 20% Status of the application unfunded

**3. P.I.** Filemon Tan

Source support NIH R01AR055308

**Project title**Anti-Fibrillin-1 in SSc-signal transduction pathway and

ER stress

Annual direct costs \$250,000

**Period covered** 04/01/07-05/31/12

Role on project: Co-P.I. % effort 10% Status of the application unfunded

#### D. Involved training grants:

1. NIH 2-T32 HD07324-16 Training Program in Mammalian Reproduction

P.I. George Stancel, PhD

Role: member, Stirring Committee; Sponsor for Cindy Zhou

Period Covered: 2000-2007

2. NIH T32 DE015355-01 Craniofacial-Oral Biology Research from NIDCR. NIH (UT-

TORCH)

P.I.: K. Storthz

Role: Sponsor for Julie Robertson Period Covered: 2003-2008

**3.** NIH T32, Pre-Post Doctoral Training in the Rheumatic Disease. P.I.: J. Reveille,

MD, 08/2007-07-2012

Role: Sponsor.

4. NIH T32 HL007591-16 Molecular and cellular mechanisms of heart disease

P.I. Heinrich Taegtmeyer, MD

Role: Sponsor

Priority score: pending

5. NIH NIDDK-Research Training In Renal Disease, Baylor College of Medicine.

**P.I.**, H. Lan, Ph.D. **Role**: Sponsor

**Period Covered:** 2003-2007 (under renewal application)

#### E. SUMMARY OF EXTRAMURAL FUNDING 1999-2016:

 1. Awarded R01 or other NIH as PI:
 \$4,652,660

 2. Other NIH grants as co-PI:
 \$205,775

 3. T32 grants:
 \$211,350

 3. Baylor:
 \$26,000

 4. Others:
 \$6,000

 Total funding
 \$5,101,785

 Current annual total cost:
 \$416,000/year

#### PRESENTATIONS (AFTER 1991):

#### a. Invited (selected)

- 1. **Lou, Y.-H**. Interleukin33 is Critical for Controlling Tissue Oxidative Stress and Aging through Regulation of Disposal of Unwanted Cells. Speaker. *15<sup>th</sup> International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants*. Pasture Institute, Paris, France, June 22-24, 2015
- 2. **Lou, YH**. IL33 in age-related neurodegenerative disease. Department of Psychiatry and Behavioral Sciences, UT Medical School at Houston. July 13, 2015
- 3. **Lou, YH**. Interleukin 33 a master for tissue waste disposal? *Renal Division Department of Medicine, Baylor College of Medicine, Houston,* April 24, 2014
- 4. **Lou, YH.** A peripheral blood CD8αα+CD11c+MHC-II+ cell attenuates autoimmune glomerulonephritis in rats. Oral presentation. *9th International Congress on Autoimmunity*, Nice, France, March 26-30, 2014
- 5. **Lou, Y.-H.**: "PBMC CD8αα+ dendritic cell: a candidate for cell-based therapy for autoimmune glomerulonephritis", *Division of Nephrology, Department of Medicine, Baylor College of Medicine, Houston.* 05/30/2012
- 6. Lou, Y.-H.: "Osteopontin in glomerular fibrosis" *Division of Nephrology, Department of Medicine, Baylor College of Medicine, Houston.* 01/13/2010
- 7. **Lou, Y.-H**.: "Immune System in Pathology and Physiology" *Division of Rheumatology, Department of Internal Medicine, University of Texas Medical School at Houston,* 10/27/2009. Research day UT- H
- 8. Lou, Y.-H.: "Immune System in Pathology and Physiology" Division of Rheumatology, Department of Internal Medicine, University of Texas Medical School at Houston, 12/04/2008
- 9. Lou, Y.-H.: "A novel dendritic cells in T cell tolerance" Division of Nephrology, Department of Medicine, Baylor College of Medicine, Houston. 07/2008
- 10. Lou, Y.-H.: What did we learn from anti-GBM disease model?" Mini Symposium on Inflammation, CCTS, NIH, Houston, May 16, 2008
- Lou, Y.-H.: A novel type of dendritic cell in prevention of autoimmune disease. The second International Congress on Immune Mediated Diseases, Moscow, September 2007
- 12. **Lou, Y.-H.**, Arend, J., J. Wu, L. Torres, and L. Troung: T cell epitope mimicry in antiglomerular basement membrane disease. *ASN 38th Annual Renal Week Meeting*. 2005
- 13. Lou, Y.-H.: Anti-GBM glomerulonephritis is a T cell mediated disease. International

- Congress of Nephrology: Prevention of chronic renal disease and renal failure, Hong Kong, 06/28-07/01, 2004
- 14. Lou, Y.H.: T cell mediated anti-GBM disease. Division of Nephrology, Department of Medicine, Baylor College of Medicine, Houston. 2003
- 15. **Lou, Y.H.**: ZP3: Autoimmunity and Contraceptive Vaccine. *International Symposium for Non-surgical Contraceptive Vaccine, Callaway Garden, 2002*
- 16. Lou, Y.H.: Ovarian Autoimmune Disease and Contraceptive Vaccine. Center for Women's Health, Houston. 2001
- 17. **Lou, Y.H.**: T cell retargeting: the role of autoantibody. *School of Medicine, Wright State University, Dayton, OH, 1998*
- 18. Lou, Y.H.: ZP3-based contraceptive vaccine. *National Institute of Family Plan (WHO Sponsored), Shanghai, China, 1997.*
- 19. Lou, Y.H.: What did we learn from ovarian autoimmune disease model? Osteopathic Health University, Des Moines, IW, 1998.
- 20. Lou, Y.H.: Mechanism of ZP3 antibody induced T cell retargeting. NIH Contraceptive Development Centers Meeting, Davis, CA. 1997
- 21. Lou, Y.H., H. Bagvant, J. Ang, F. McElveen, H. Thai, K.S. Tung. Pathogenetic mechanisms of autoimmune ovarian disease and design of ZP3 peptide vaccine. International Symposium on Prospects of Zona Pellucida Glycoproteins for Immunocontraception. New Delhi, India, 1995
- 22. Lou, Y.H.: A short immunogenic peptide from murine ZP3 initiates autoantibody responses spreading to whole zona pellucida. Sixth Annual Mid-Atlantic Reproductive Biology Meeting, Johns Hopkins University, Baltimore, MD. 1993.
- 23. **Lou, Y.H.**: The nature of antibodies elicited by a vaccine peptide from mouse ZP3 and preliminary finding on the role of antibodies in autoimmune oophoritis. *NIH Contraceptive Vaccine Development Meeting, Simsbury, CT. 1992.*
- 24. Lou, Y.H., Tung, K.S.K. Immunization of mice with an oophoritogenic peptide from murine ZP3 elicits autoantibody to ZP3 determinants outside the ZP3 peptide, *IX Ovarian Workshop. Chapel Hill, NC 1992.*

### **B.** Other Presentations (selected):

1. Lisa Torres, Cindy Zhou, Horacio E. Adrogue, and **Y.-H. Lou**. Coincident Activation of Th2 T Cells with Onset of the Disease and Differential Expression of GRO-γ in Peripheral Blood Leukocytes in Minimal Change Disease. *American Medical Student Association Conference, Washington, DC. 2007. March.* 

- 2. **Lou, YH**. A Novel CD8 $\alpha\alpha^+$  dendritic cells in autoimmune glomerulophephritis. Oral presentation,  $3^{rd}$  International Symposium on Immune Mediated Diseases. Moscow, Russia, September 16, 2007.
- 3. Robertson, J. Wu, J. Arends, C. Zhou, J. McMahon, L. Torres, and **Y-H. Lou**. B cell epitope spreading in T cell-mediated autoimmune disease is a consequence of *de novo* B cell response to autoantigens released from tissue damage. *Tolerance, Autoimmunity and Immune Regulation, Keystone Symposia, Breckenridge, CO. 2006. March 21-26th.*
- 4. Vigneswaran, N., D. Baucum, J. Wu, S. Muller, Y.-H. Lou, and W. Zhacharias. Expression of TRAIL (Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand) and its receptors in oral squamous cell carcinoma (OSCC): relation to apoptosis rate and prognosis. AACR 97<sup>th</sup> Annual Meeting, Washington DC, 2006 April 1-5.
- 5. Adrogue, H.E., L. Torres, D. Feig, A. Kale, J. Borillo, J. Merszei, R. Johnson, and Y.-H. Lou: Is GRO-alpha the elusive glomerular permeability factor in Minimal Change Disease? ASN 38th Annual Renal Week Meeting. 2005
- 6. Arend, J., J. Wu, L. Torres, L. Troung, and **Y.-H. Lou**: T cell epitope mimicry in antiglomerular basement membrane disease. *ASN 38th Annual Renal Week Meeting*. 2005.
- 7. Fulton, R., M.O. Hutchins, G. Anderson, A. Moretti, **Y.-H. Lou**, and S.H. Koh: Effect of Gingiden Treatment of Periodontitis (2357). *IADR/AADR Annual Meeting*. 2005
- 8. Robertson, J., J. Wu, J. Arends, W. Glass II, S. Southwood, A. Sette, and Y.-H. Lou. Characterization of the T cell epitope that causes anti-glomerular basement membrane glomerulopnpehritis. *UT-Health Science Center Research Day*, 2004 (Julie won the 2<sup>nd</sup> Place in GSBS student competition)
- 9. Guzman, C., A. Bui, R. Fulton, and **Y.-H. Lou**: Antibody Specificity of IgA/G in Gingival Crevicular Fluid. *Hinman Student Research Symposium*. 2004
- 10. A. Bui, Guzman, C., R. Fulton, and **Y.-H. Lou**: Cytokine Profile in Gingival Crevicular Fluid (GCF) of Periodontal Disease. *Hinman Student Research Symposium*. 2004
- 11. C. Zhou, J. Borillo, J. Wu, and Y.-H. Lou: Ovarian leukocytes: subtypes and their potential roles. Society of Reproductive Immunology Annual Meeting, 2003
- 12. C. Zhou and **Y.H. Lou**: Ovarian expression of chemokine TECK and CD8 cells in ovulation. The Annual Meeting of the Texas Forum for Female Reproduction (TFFR). 2003. (Stage Presentation).
- 13. Hicks, J., J. Wu, J. Borillo, R. Nichols, S.-H. Zhu, J. Barrish, **Y.H. Lou**: Glomerulonephritis induced by recombinant type 4 collagen specific T-cell transfer: Histopathologic and ultrastructural study. *Scientific Meeting, US and Canadian*

#### Academy of Pathology. 2001

- 14. Wu. J., J. Borillo, J. Hicks, W.F. Glass II and Y.H. Lou: Wegener's granulomatosis and Goodpasture's syndrome: T cell mediated autoimmunity to collagen 3α(IV). *Univ. Tx. Houston. Research Day. 2001*.
- 15. Hicks, J., J. Wu., J. Borillo, S. Zhu, J. Barrish, and Y.H. Lou: T-cell mediated glomerulonephritis associated with Col4α3NC1 immunization: histopahtologic and untrastructural investigation. *Ann. Scientific Meeting, US and Canadian Academy of Pathology.* 2000
- 16. Lou, Y.H., K.K. Park, S. Agersborg: Binding of autoantibody to tissue antigens directs targeting of pathogenic T cells to tissue antigen in organ specific autoimmune disease. Keystone Symposia, Molecular Mechanism of Leukocyte Trafficking. Lake Tahoe, CA, 1998
- 17. Lou, Y.H., S. Coonord, W. Kramr, K.S. Tung: Destruction of zona pellucida of ovulated oocytes by anti-ZP3 antibodies: a potential mechanism of ZP-based contraceptive vaccine. First International Conference on Experimental and Clinical Reproductive Immunology. Charlottesville, VA, 1997
- 18. Lou, Y.H., Park, S. Agersborg, N. Griggs, K.S. Tung: A novel role of autoantibody in organ-specific autoimmune disease: directing the location of T cell-mediated inflammation. First International Conference on Experimental and Clinical Reproductive Immunology. Charlottesville, VA, 1997
- 19. Lou, Y.H., K.K. Park, K. S. Tung: Binding of autoantibody to the tissue antigen directs targeting of T cell-mediated autoimmune inflammation. *Keystone Symposia, Lymphocyte Activation. Hilton Head, SC, 1996,*
- 20. Lou, Y.H.: Autoantibody amplification by a single T cell epitope. New Frontiers in Male Contraception, Mellon Foundation, Durham, NC, 1995
- 21. Lou, Y.H., McElveen, F., Tung, K.S.K.: The ZP3 mini-autoantigen: 4) Induction of autoantibody to ZP3 by immunization with a pure T cell epitope (amplification phenomenon). 14th merican Society for Reproductive Immunology. Philadelphia PA, 1994
- 22. McElveen, F., **Lou, Y.H.**, Thai, H., Tung, K.S.K.: The ZP3 mini-autoantigen: 1) Autoimmune oophoritis terminates spontaneously with concomitant T cell unresponsiveness. 14<sup>th</sup> American Society for Reproductive Immunology. Philadelphia PA, 1994
- 23. Lou, Y.H., McElveen, M.F., Tung, K.S.K.: Single T cell peptide of a self protein elicits autoantibodies to the protein antigen: implication for specificity and pathogenetic role of antibody in autoimmunity. Lymphocyte Activation Conference. Keystone CO, 1994. 04-

10 to 17

- 24. Tung, K.S.K., Smith, H., **Lou, Y.H**.: Tolerance of mechanisms that regulate autoimmune responses to ovarian and gastric autoantigens, *IX Ovarian Workshop. Chapel Hill, NC* 1992
- 25. **Lou, Y.H.**, Luo, A.M., Tung, K.S.K.: Specificity of antibody response to murine ZP3 peptide ZP3<sup>328-342</sup> (A1). *11<sup>th</sup> American Society for Reproductive Immunology. Charlotteville, VA,* 1991
- 26. **Lou, Y.H.,** Tung, K.S.K.: Immunization of mice with oophoritogenic peptide from murine ZP3 elicits autoantibody to ZP3 determinants outside the peptide. *American Society of Andrology Meeting, Bethesda, MD,* 1991
- 27. Tung, K.S., S.H. Rhim, A.M. Luo, **Y.H. Lou**, T. Yule, P. Allen, F. Robey, S. Millard, J. Dean. Autoimmune disease of ovary is induced by a peptide from murine zona pellucida protein. *75<sup>th</sup> FESAB Annual Meeting*, *Atlantic*, *GA*. 1991

#### **PUBLICATIONS:**

#### A. Abstracts (selected, after 1991, excluding meeting proceeding)

- 1. Arend, J., J. Wu, L. Torres, L. Troung, and **Y.-H. Lou**: T cell epitope mimicry in antiglomerular basement membrane disease. *J. Am. Soc. Nephrol.* 16: 98A. 2005
- 2. Adrogue, H.E., L. Torres, D. Feig, A. Kale, J. Borillo, J. Merszei, R. Johnson, and **Y.-H. Lou**: Is GRO-alpha the elusive glomerular permeability factor in Minimal Change Disease? *J. Am. Soc. Nephrol.* 16: 783A. 2005
- 3. C. Zhou, J. Borillo, J. Wu, and **Y.-H. Lou**: Ovarian leukocytes: subtypes and their potential roles. *Am. J. Reprod. Immunol.* 49(6):355. 2003
- Deshmukh US, Kannapell CJ, Lewis JE, Gaskin F, Lou YH, Waters ST, Tung KS, Fu SM Self-reactive T-cells in the generation of autoimmune responses against Ro60. J. Allergy Clin. Immunol. 99 (1): 1570. Part 2 Suppl. S, 1997
- Lou, Y.H., S. Coonord, W. Kramer, K.S. Tung: Destruction of zona pellucida of ovulated oocytes by anti-ZP3 antibodies: a potential mechanism of ZP-based contraceptive vaccine. J. Reprod. Immunol. 35:124. 1997
- 6. Tung K.S.K., **Lou Y.H.**, Smith H, et al.: Prevention and pathogenesis of ovarian autoimmune disease (AOD): A model of premature ovarian failure. *J. Allergy Clin. Immunol.* 99 (1): 2045-2045 Part 2 Suppl. S. 1997
- 7. **Lou, Y.H.,** Park, S. Agersberg, N. Griggs, K.S. Tung: A novel role of autoantibody in organ-specific autoimmune disease: directing the location of T cell-mediated

- inflammation. J. Reprod. Immunol. 35: 211. 1997
- 8. Lou, Y.H., McElveen, F., Tung, K.S.K.: The ZP3 mini-autoantigen: 4) Induction of autoantibody to ZP3 by immunization with a pure T cell epitope (amplification phenomenon). *Am. J. Reprod. Immunol.* 31(4):234.1994
- 9. McElveen, F., **Lou, Y.H.**, Thai, H., Tung, K.S.K.: The ZP3 mini-autoantigen: 1) Autoimmune oophoritis terminates spontaneously with concomitant T cell unresponsiveness. *Am. J. Reprod. Immunol.* 31(4):235. 1994
- 10. **Lou, Y.H.**, Luo, A.M., Tung, K.S.K.: Specificity of antibody response to murine ZP3 peptide ZP3<sup>328-342</sup> (A1). *Am. J. Reprod. Immunol. 25(2):63.* 1991
- 11. **Lou, YH**, McElveen M.F., Tung, K.S.K.: Single T-cell epitope of a self protein elicites autoantibodies to the protein antigen implication for specificity and pathogenic role of antibody in autoimmunity. *J. Cell. Biochem.: Suppl. 18D: 318.* 1994 <a href="http://onlinelibrary.wiley.com/doi/10.1002/jcb.240560809/abstract">http://onlinelibrary.wiley.com/doi/10.1002/jcb.240560809/abstract</a>
- 12. Tung, K.S.K., Rhim, S.H., Luo, A.M., **Lou, Y.H.**, Yule, T., Allen, P., Robey, F., Millar, S., Dean, J.: Murine autoimmune oophoritis induced by immunization with a peptide from murine zona pellucida (ZP) protein ZP3. *Am. J. Reprod. Immunol.* 25(2):56. 1991.

#### **B. PEER-REVIEWED PUBLICATIONS**

- Carlock C, J. Wu, J. Shim, I. Moreno-Gonzalez, M. Pitcher, J de Quevedo, J. Hicks, A. Suzuki, J. Iwata, and Y. Lou: Interleukin33 deficiency causes tau abnormality and neurodegeneration with Alzheimer-Like symptoms in aged Mice. *Trans. Psychiatry* (in press) 2017
- 2. Ross A, J Wu, C Carlock, W Glass II, and **Y Lou**. Inter-molecular epitope spreading does not lead to extension of inflammation beyond glomeruli in autoimmune glomerulonephritis. (under review) 2017
- 3. Wu, J., C. Carlock, A. Ross, J. Shim, and **Y. Lou**. CD8αα+MHC-II+ Cell with capacity to terminate autoimmune inflammation is a novel antigen-presenting NK-like cell in rats. *J. Immunol.* 197:4274-4282. 2016
- 4. Huang, L. Lou Y, Ju, H, Zhang L., Pan JSC; Ross A, Sun Y, Truong LD, and Sheikh-Hamad D. Altered phenotype of anti-GBM glomerulonephritis following conditional and kidney-specific knockdown of stanniocalcin-1. *PLOS ONE* 10(9): e0138440. 2015
- 5. Zhou, C., K. Lou, K. Tatum, J. Funk, J. Wu, T. Bartkowiak, D. Kagan, and **Y.H Lou**. Differentiating Glomerular Inflammation from Fibrosis in A Bone Marrow Chimera for Rat Anti-GBM Glomerulonephritis. *Am. J. Nephrol.* 42(1):42-53. 2015.
- **6.** Wu, J., Carlock, C., Zhou, C., Nakae, S., Hicks, J., Adams, H. P., and **Lou, Y.** Interleukin33 is required for disposal of unnecessary cells during ovarian atresia

- through regulation of autophagy and macrophage migration. *J. Immunol.* 194:2140-2147. 2015. (Featured in *In This Issue* titled "IL33 helps crack of rotten eggs").
- 7. Carlock, C, Wu, J. Zhou, C., Tatum, K., Adams, H.P., Tan, F., and **Lou, Y.H**. Unique Temporal and Spatial Expression Patterns of IL-33 in Ovaries during Ovulation and Estrous Cycle Are Associated with Ovarian Tissue Homeostasis. *J. Immunol.* 193(1):161-169. 2014.
- Wu, J., Zhou, C., Robertson, J., Carlock, C., and Y.H. Lou: A peripheral blood CD8αα<sup>+</sup>CD11c<sup>+</sup>MHC-II<sup>+</sup> cell attenuates autoimmune glomerulonephritis in rats. Kidney Intl. 85: 1078–1090. 2014 (Commentary by Woollard KJ, Pusey CD. Kidney Intl. 85: 1011–1014)
- 9. Carlock, C, Wu, J., Zhou, C., Ross, A., Adams, H., and **Y.H. Lou**. Ovarian phagocyte subsets and their distinct tissue distribution patterns. *Reproduction* 146(4): 491-500 (DOI: 10.1530/REP-13-0134). 2013
- Zhou, C., Wu, J., C. Robertson, T. Bartkowiak, K. Parker J. McMahon, and Y.-H. Lou: Natural recovery from anti-GBM glomerulonephritis is associated with glomeruli-infiltrating CD8α+CD11c+MHC class-II+ cells. *Am. J. Nephrol.* 34:519-528. 2011.
- 11. Wu, J., C. Zhou, J. Robertson, C. C.Y. Weng, M. L. Meistrich, R. C. Tailor, and Y.-H. Lou. Identification of a bone marrow derived CD8αα<sup>+</sup> dendritic cell like population in inflamed autoimmune target tissue with capability of inducing T cell apoptosis. *J. Leukoc. Biol.* 88:849-861. 2010 (Cover story, Editorial comments, and in *Leading Edge Research*). PMID: 20628068
- 12. Zhou, C., J. Wu, L. Torres, J. M. Hicks, T. Bartkowiak, K. Parker and **Y.-H. Lou**. Blockade of osteopontin inhibits glomerular fibrosis in a model of anti-GBM glomerulonephritis. *Am. J. Nephrol.* 32:324-331. 2010
- 13. Merszei, J. D., J. Wu, L. Torres, J. Hicks, T. Bartkowiak, F. Tan, and **Y.-H. Lou**. Overproduction of osteopontin is associated with progression of glomerular fibrosis in rat anti-GBM glomerulonephritis. *Am. J. Nephrol.* 32:262-271. 2010
- 14. Huang, L.P., G. Garcia, Y. H. Lou, Q. Zhou, L. D. Truong, G. DiMatta, X.R. Lan, H.Y. Lan, Y. Wang, and D. Sheikh-Hamad. Anti-inflammatory and renal protective action of stanniocalcin-1 in a model of anti-GBM glomerulonephritis. *Am. J. Pathol.* 174(4): 1368-1378. 2009
- 15. Zhou, C. J. Wu, J. Borillo, L. Torres, J. McMahon, and **Y.H. Lou**. Potential roles of a special CD8 $\alpha\alpha^+$  cell population and CC chemokine thymus expressed chemokine in ovulation related inflammation. *J. Immunol.* 182: 596-603. 2009
- 16. Robertson, J., J. Wu, J. Arends, C. Zhou, H. Adrogue, J. Chan, and **Y.H. Lou**. Spontaneous recovery from early glomerular inflammation is associated with resistance to anti-GBM glomerulonephritis: tolerance and autoimmune tissue injury. *J.*

- Autoimmunity 30: 246-256. 2008
- 17. Borill, J., S. A. Coonrod, J. Wu, C. Zhou and **Y.-H. Lou**. Antibodies to two ZP3 B-cell epitopes affect zona pellucida assembly. *J. Reprod. Immunol.* 78: 149-157. 2008
- 18. Vigneswaran, N., D. C. Baucum, J. Wu, **Y.-H. Lou**, J. Bouquot, S. Muller and W. Zacharias. Repression of Tumor Necrosis Factor-related apoptosis-inducing ligand (TRAIL) but not its receptors during oral cancer progression. *BMC Cancer* 7: . 2007
- 19. Adrogue, H.E., J. Borillo, L. Torres, A. Kale, C. Zhou, D. Feig, J. Merszei, R. Johnson, and **Y.H. Lou**. Coincident activation of Th2 T cells with onset of the disease and differential expression of GRO-γ in peripheral blood leukocytes in minimal change disease. *Am. J. Nephrol.* 27:253-261. 2007.
- Arends, J., J. Wu, J. Borillo, L. Truong, C. Zhou, N. Vigneswaran, and, Y.-H. Lou. T cell epitope mimicry in anti-glomerular basement membrane disease. *J. Immunol.* 176 (2): 1252-1258. 2006 (Introduced in Journal Club titled "Cell epitope mimicry in antiglomerular basement membrane disease in *Kidney International* 2006, 69(6):951)
- 21. Robertson, J., J. Wu, J. Arends, C. Zhou, J. McMahon, L. Torres, and **Y.-H. Lou**. Activation of GBM-specific B cells in the renal draining lymph node following T cell mediated glomerular injury. *J. Am. Soc. Nephrol.* 16: 3256-3263. 2005.
- 22. Robertson, J., J. Wu, J. Arends, W. Glass II, S. Southwood, A. Sette, and **Y.-H. Lou**. Characterization of the T cell epitope that causes anti-glomerular basement membrane glomerulopnpehritis. *Kid. Int.* 65(3): 1061-1070 2005.
- 23. Zhou J. Wu, J. Borillo, L. Torres, J. McMahon, Y. Bao and **Y.-H. Lou**. Transient expression of CC chemokine TECK in the ovary during ovulation: its potential role in ovulation. *Am. J. Reprod. Immunol.* 53: 238-248. 2005.
- 24. Zhou, C., J. Borillo, J. Wu, L. Torres, and **Y.-H. Lou.** Ovarian expression of chemokines and their receptors. *J. Reprod. Immunol.* 63(1):1-9 2004
- 25. Wu, J., J. Arends, J. Borillo, C. Zhou, J. Merszei, J. McMahon and **Y.-H. Lou**: A self T cell epitope induces autoantibody response: mechanism for production of antibodies to diverse glomerular basement membrane antigens. *J. Immunol.* 172(7):4567-4574. 2004. (Editorial Introduction "In This Issue" titled "Rethink anti-GBM disease")
- 26. Wu, J., J. Borillo, W. F. Glass II, J. Hicks, C.-N. Ou, and **Y.-H. Lou**: T cell epitope of α3 chain of Type IV collagen induces severe glomerulonephritis. *Kid. Int.* 64(4):1292-1301. 2003
- 27. **Lou, Y.-H.** and J. Borillo: Migration of non-specific T cells from nearby inflammatory foci into antibody bound tissue: A relay between T cell and antibody mediated autoimmunity. *J. Autoimmunity* 21:27-35. 2003

- 28. Wu, J., J. Hicks, Borillo, W.F. Glass II, and **Y.H. Lou**: CD4<sup>+</sup> T cells specific to glomerular basement membrane antigen induce glomerulonephritis. *J. Clin. Invest.* 109(4)517-524. 2002 (with **Commentary** by Bolton titled What sensitized cells just might be doing in glomerulonephritis in *JCI* 109(6):713-4)
- 29. Wu,J., J. Hicks, C.-N. Ou, D. Singleton, J. Borillo, and **Y.-H. Lou**: Glomerulonephritis induced by recombinant collagen 4α3 chain noncollagen domain1 is not associated with antibody to GBM: a potential T cell mediated mechanism. *J. Immunol.* 167:2388-2395. 2001
- 30. **Lou, Y.-H.**, K.K. Park, S. Agersberg, P. Alard, and K.S.K. Tung: Retargeting T cell mediated inflammation: A new perspective on autoantibody action. *J. Immunol.* 164(10):5251-5257. 2000
- 31. Tung, K.S.K., K.M. Garza, **Y.-H. Lou**, and H. Bagavent: Autoimmune ovarian disease: mechanism of induction and prevention. *J. Soc. Gyn. Invest. 8:* s49-51. 2001
- 32. Wei, S., Y.-H. Lou, J. Dean, and K.S.K. Tung: A contraceptive peptide vaccine targeting sulfated glycoprotein ZP2 of the mouse zona pellucida. *Biol. Reprod.* 60:900-907. 1999
- 33. Deshmukh, U., J.E. Lewis, F. Gaskin, C. Kannapell, S.T. Waters, **Y.-H. Lou**, K.S.K. Tung, and S.M. Fu: I. Immune responses to Ro60 and its peptides in mice: the nature of the immunogen and endogenous autoantigen determine the specificities of the induced autoantibodies. *J. Exp. Med.* 189:531-540. 1999 (**Cover**)
- 34. Bagavant, H., S. Adams, P. Terranova, A. Chang, F.W. Kraemer, Y.-H. Lou, K. Kasai, A. M. Luo, and K.S.K.Tung: Autoimmune ovarian inflammation triggered by proimflammatory (Th1) T cells is compatible with normal ovarian function. *Biol. Reprod.* 61(3):635-642. 1999
- 35. Garza, K.M., Y.-H. Lou, and K.S.K. Tung: Mechanism of ovarian autoimmunity: induction of T cell and antibody responses by T cell epitope mimicry and epitope spreading. *J. Repord. Immunol.* 37:87-101. 1998
- 36. Enelow, R., A.Z. Mohammed, M.H. Stoler, A.N. Liu, J.S. Young, **Y.-H. Lou**, and T.J. Braciale: Structural and functional consequences of Alveolar cell recognition by CD8<sup>+</sup>T lymphocytes in experimental lung disease. *J. Clin. Invest.* 102(9):1653-1661. 1998
- 37. Zhang, X., Y.-H. Lou, M. Koopman, T. Doggett, K.S. Tung, and R. Curtiss III: Antibody responses and infertility in mice following oral immunization with attenuated *Salmonella typhimurine* expressing recombinant murine ZP3. *Biol. Reprod.* 56:33-41. 1997
- 38. Tung, K.S.K., J. Ang, and **Y.H. Lou.:** ZP3 peptide vaccine that induces antibody and reversible infertility without autoimmune oophoritis. *Am. J. Reprod. Immunol.* 35:181-183. 1996

- 39. Lou, Y.-H., F. McElveen, K. M. Garza and K.S.K. Tung: Rapid induction of autoantibodies by endogenous ovarian antigens and activated T cells: implication in autoimmunity pathogenesis and B cell tolerance. *J. Immunol.* 156:3535-3540. 1996
- 40. **Lou, Y.-H.**, H. Bagavant, J. Ang, M.F. McElveen, H. Thai and K.S.K. Tung: Influence of autoimmune ovarian disease pathogenesis on ZP3 contraceptive vaccine design. *J. Reprod. Fert. (Supl.)* 50:159-163. 1996
- 41. **Lou, Y.-H.**, J. Ang, H. Thai, F. McElveen and K.S.K. Tung: A zona pellucida 3 peptide vaccine induces antibody and reversible infertility without ovarian pathology. *J. Immunol.* 155:2715-2720. 1995
- 42. **Lou, Y.-H.,** F. McElveen, S. Adams and K.S.K. Tung: Altered target organ: a mechanism of post-recovery resistance to murine autoimmune oophoritis. *J. Immunol.* 155:3667-3673. 1995
- 43. Tung, S.K.S., **Y.-H. Lou**, A.-M. Luo, and J. Ang: Contraceptive vaccine assessment based on a murine ZP3 mini-autoantigen. *Reprod. Fertil. Dev.*, *6:349-355.* 1994
- 44. Mochida, K., **Y.-H. Lou**, A. Hara and K. Yamauchi: Physical biochemical properties of IgM from a teleost fish. *Immunology* 83:675-680. 1994
- 45. Tung, K.S.K., **Y.-H. Lou** and H. Smith: Mechanism of self tolerance and autoimmune disease pathogenesis: analysis based on ovarian autoimmune models. *Immunology of Reproduction.* (ed. Hunt, J.S) *Serono Symposia 99:239-253.* 1994
- 46. Tung, K.S.K., Y.-H. Lou, A.-M. Luo and H. Smith: Pathogenesis and regulation of ovarian autoimmune disease: A known cause of premature ovarian failure. *Understanding Male Fertility: Basic and Clinical Approaches (eds., R.W. Whitecomb abd B.R. Zirkin) Serono Symposia* 98:245-256. 1993
- 47. **Lou, Y.-H.** and K.S.K. Tung: T cell peptide of a self-protein elicits autoantibody to the protein antigen: implications for specificity and pathogenic role of autoantigen in autoimmunity. *J. Immunol.* 151:5790-5799. 1993
- 48. Tung, K.S.K., **Y.-H. Lou**, and A.M. Luo: Autoimmune disease of ovary: a mechanism of premature ovarian failure and a complication of ZP3 contraceptive vaccine. *Reproductive Immunology* (eds., F. Dondero and P.M. Johnson), *Serono Symposia* 97:169-179. 1993
- 49. Hirai, T., M. Yamashita, M. Yoshikuni, **Y.-H. Lou** and Y. Nagahama: Cyclin B in fish oocytes: its cDNA and amino acid sequence, appearance during maturation, and induction of p34cdc2 activation. *Mol. Reprod. Dev.* 33:131-140. 1992

- Rhim, S.H., S. Millar, F. Robey, A.-M. Luo, Y.-H. Lou, T. Yule, P Allen, J. Dean and K. S.K. Tung: Autoimmune disease of the ovary induced by a ZP3 peptide from the mouse zona pellucida. *J. Clin. Invest.* 89:28-35. 1992
- 51. Tung, K.S.K, H. Smith, S.H. Rhim, A.M. Luo, and **Y,H, Lou:** Regulation and pathogenetic mechanism of autoimmune disease of the ovary. *Molecular and Cellular Biology of Reproduction*. (eds., G. Spera, A. Fabbrini, L. Gnessi and C.W. Bardin), *Serono Symposia* 90:207-213. 1992
- 52. Smith, H., **Y.-H. Lou**, P. Lacy and K.S.K. Tung: Tolerance mechanisms in experimental ovarian and gastric autoimmune disease. *J. Immunol.* 149:2212-2218. 1992
- 53. Yamashita, M., S. Fukuda, M. Yoshikuni, P. Bulet, T. Hirai, A. Yamaguchi, **Y.-H. Lou**, Z. Zhao and Y. Nagahama: Purification and characterization of maturation-promoting factor in fish. *Dev. Biol.* 149:8-15. 1992
- 54. **Lou, Y.-H.** and H. Takahashi: Highly specialized sperm surface antigens in the Nile tilapia, *Oreochromis niloticus*, as revealed by conventional anti-sperm antibody and autoantibodies. *J. Exp. Zool.* 258:255-262. 1991
- 55. **Lou, Y.-H.**, K. Yamauchi and H. Takahashi: Isolation and partial characterization of sperm membrane of masu salmon, Oncorhynus masou. *Comp. Physiol. Biochem. 95B:187-192.* 1990
- 56. **Lou, Y.-H.** and H. Takahashi: Spermiogenesis in the Nile tilapia (Oreochromis niloticus) with notes on a unique pattern of unclear chromatin condensation. *J. Morphol.* 200:321-330. 1989
- 57. **Lou, Y.-H.**, A. Hara and H. Takahashi: Induction of autoantibodies against spermatozoa by injection of allogeneic sperm in the Nile tilapia *Oreochromis niloticus*. Comp. Physiol. Biochem. 94B:829-836. 1989
- 58. **Lou, Y.-H.** and H. Takahashi: The blood-testis barrier and its breakdown following immunization to testis material in the Nile tilapia (Oreochromis niloticus). *Cell Tissue Res.258:491-498.* 1989
- 59. **Lou, Y.-H.** and H. Takahashi: Chronic changes of autoimmune responses to testis material in male tilapia, Oreochromis niloticus. *Bull. Fish. Fac. Hokkaido Univ.* 39:201-209. 1988
- 60. **Lou, Y.-H.** and H. Takahashi: Induction of autoimmune responses to testis in a tilapia, Oreochromis niloticus. *Bull. Fish. Fac. Hokkaido Univ.* 38:14-26. 1987

#### C. INVITED ARTICLES / CHAPTERS:

- Lou, Y-.H.: Dendritical Cells: Two edged swords in pathogenesis of autoimmune glomerulonephritis. In *Glomerulonephritis – Etiology and Pathogenesis*. (Ed. SS Prabhakar). InTech. Pp219-246., 2011.
- 2. **Lou, Y.-H**.: Immune system in female infertility. *Current Women's Health Reviews.* (invited) 2014
- 3. Lou, Y.-H.: Autoimmune diseases: MHC and beyond (Chapter 29). In *Genetics of Human Diseases*. (Ed. Y.J. Liu) World Scientific Publishing. Pp833-864, 2008
- 4. **Lou, Y.-H.:** Anti-GBM glomerulonephritis: A T cell mediated disease? *Arch. Immunol. Therap. Exp. 52:96-103.* 2004
- 5. Tung, K.S.K., S.S. Agersborg, P. Alard, K.M. Garza, and **Y.-H. Lou**: Regulatory T cell, endogenous antigen, neonatal environment in the prevention and induction of autoimmune disease. *Immunol. Rev.* 182:135-148. 2001
- 6. K. S. K. Tung, K. M. Garza, and **Y.-H. Lou**: Induction of Pathogenic Autoimmune T-Cell and Autoantibody Responses through T-Cell Epitope Mimicry, In *Autoimmune Reactions*. (Ed. P. Sudhir). Humana Press. Totowa, NJ. *Pp99-122*. 1998
- 7. Tung, K.S.K., Y.-H. Lou, K.M. Garza, and C. Teuscher: Autoimmune ovarian disease: mechanism of disease induction and prevention. *Curr. Opin. Immunol.* 9:839-845. 1997 (cover picture)

#### D. SUMMARY OF PUBLICATIONS IN REFFERED JOURNALS number of publication Journal impact factor 3 1. J. Clin. Invest. 16.915 1 2. J. Exp. Med. 15.612 3. Curr. Opin. Immunol. 12.118 1 Immunol. Rev. 1 4. 10.536 5. J. Am. Soc. Nephrol. 9.976 1 6. J. Autoimmunity 7.368 2 7. J. Immunol. 13 7.065 Am. J. Pathol. 1 8. 5.917 3 9. Kid. Int. 5.672 10. Dev. Biol. 1 5.313 4.627 1 11. J. Leukoc. Biol. 12. Biol. Reprod. 3 3.646 3.455 1 13. Reproduction 5 14. Am. J. Nephrol. 3.487 15. J. Exp. Zool. 1 3.36 16. PLos One 1 3.24 17. Cell Tissue Res. 3.114

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18.	Immunology	2.835	1
19.	BMC Cancer	2.710	1
20.	J. Reprod. Immunol.	2.379	3
21.	Reprod. Fertil. Dev	2.109	1
22.	Mol. Reprod. Dev.	2.04	1
23.	Am. J. Repord. Immunol.	2.088	2
24.	Comp. Physiol. Biochem. (B)	1.923	2
25.	J. Morphol.	1.71	1
26.	Others		6

#### **PATENT:**

Applicant: University of Virginia (494-128-27)

Inventor: Tung/Lou (50/50%)

Title: A tandem peptide containing B cell epitope of zona pellucida glycoprotein ZP3 and a promiscuous T cell epitope of a foreign protein to be used as antigen in a contraceptive vaccine for animal and human.