

## CURRICULUM VITAE

June 20, 2021

**NAME:** Han Zhang, M.D.

**PRESENT TITLE:** Professor  
Department of Neurobiology and Anatomy  
McGovern Medical School , University of Texas Health Science  
Center at Houston (UTHealth)

**WORK ADDRESS:** Department of Neurobiology and Anatomy  
McGovern Medical School  
The University of Texas Health Science Center at Houston  
6431 Fannin St., MSB 7.159  
Houston, TX 77030

**CITIZENSHIP:** USA

### UNDERGRADUATE AND GRADUATE EDUCATION:

1977-1980 M.D., Yangzhou Medical School, Yangzhou, P. R. of China

### POSTGRADUATE TRAINING:

1982-1983 Advanced class of Anatomy for college teachers  
Xi'an Medical University, Xi'an, P. R. of China

1991 Advanced neuroscience research training program  
The Capital Institute of Medicine, Beijing, P. R. of China

1992-2001 Postdoctoral training, John Byrne and Leonard Cleary  
Department of Neurobiology and Anatomy, McGovern Medical School  
(formerly *The University of Texas Medical School at Houston*)

### ACADEMIC & ADMINISTRATIVE APPOINTMENTS:

1980-1987 Instructor, Yangzhou Medical School

1987-1992 Senior instructor, Yangzhou Medical School, P. R. of China

- 1992-1993 Visiting Scientist, Department of Neurobiology and Anatomy  
McGovern Medical School (*formerly The University of Texas Medical School at Houston*)
- 1993-2001 Research Fellow, Department of Neurobiology and Anatomy  
McGovern Medical School
- 2002-2006 Lecturer, Department of Neurobiology and Anatomy  
McGovern Medical School
- 2006-2011 Senior Lecturer, Department of Neurobiology and Anatomy  
McGovern Medical School
- 2009-present Adjunct Professor, Medical School of Yangzhou University, P. R. of China
- 2011-2015 Associate Professor, Department of Neurobiology and Anatomy  
McGovern Medical School
- 2016-present Professor, Department of Neurobiology and Anatomy  
McGovern Medical School
- 2011-2016 Member, Curriculum Committee, McGovern Medical School
- 2017-present Member, Faculty Council, First Aid / USMLE-Rx

**PROFESSIONAL ORGANIZATIONS:**

- 1983-1992 Chinese Society for Anatomical Sciences
- 1994-present Society for Neuroscience
- 2005-present American Association of Clinical Anatomists

**HONORS AND AWARDS:**

- 1978-1982 Dean's Teaching Award, Yangzhou Medical School, P. R. of China
- 1979 The Best Academic Performance Award, Jiangsu Province, P. R. of China
- 1982 Graduation with top honors, Yangzhou Medical School, P. R. of China
- 1988 The Best Educators Award, Jiangsu Province, P. R. of China
- 1992 Academic Scholarship, Jiangsu Province, P. R. of China

2001	Outstanding Teaching in Gross Anatomy, Class of 2005 McGovern Medical School ( <i>formerly The University of Texas Medical School at Houston</i> )
2002	Outstanding Teaching in Gross Anatomy, Class of 2006 McGovern Medical School
2003-2021	Dean's Teaching Excellence Award, McGovern Medical School
2004-present	Member, Alpha Omega Alpha Honor Medical Society
2006	Best Gross Anatomy Teacher, Class of 2010, McGovern Medical School
2006, 2008, 2010, 2013, 2016, 2019	John Freeman Faculty Teaching Award (the award is chosen by the senior class each year to recognize the Medical School's most outstanding basic science faculty member), McGovern Medical School
2007, 2008	Master Teacher Award, McGovern Medical School
2008, 2009	Best Gross Anatomy Teacher, Class of 2011 and 2012, McGovern Medical School
2010	Best Anatomy Lecturer, Class of 2013, McGovern Medical School
2011	Best Anatomy Lecturer, Class of 2014, McGovern Medical School
2012	Best Anatomy Lecturer, Class of 2015, McGovern Medical School
2012-present	Member, Academy of Master Educators, McGovern Medical School
2013	Service Award, Class of 2013, McGovern Medical School
2013	Best Gross Anatomy Professor, Class of 2016, McGovern Medical School
2015	Regents' Outstanding Teaching Award, The University of Texas System

### **CURRENT TEACHING RESPONSIBILITIES:**

**Foundations of Medicine Module** (*formerly Gross Anatomy course*), **McGovern Medical School** (*formerly The University of Texas Medical School at Houston*), 2000-present, fall semester annually, 230-253 students

**Module:** Attend all lectures. Responsible for development of course organization, syllabus creation, and exam preparation for my lectures.

**Lecturer:** Deliver 9-16 lectures. Deliver 20-30' live demonstration at beginning of each lab.

**Lab Director:** Responsible for student pre-lab dissections for 33 labs and supervise students in labs; prepare cadavers for 3 block laboratory exams; and supervise student laboratory presentations.

**Faculty Pro-Section:** For each lab, pre-lab dissection of one cadaver for use in lab presentations, to help guide student pre-lab dissections, and to help illustrate 200-500 structures to be learned in each lab.

**Lab Lecturer:** Prepare, organize, and deliver 30 post-lab review lectures for students.

**Lab Reviews:** Lead weekend and pre-exam lab reviews, provide more than 30 small-group reviews each year (3-6 students for each group), scheduled for students who miss part of the course, fall behind, or need specialized help.

**Nervous System and Behavior Module** (*formerly Medical Neuroscience course*), **McGovern Medical School**, 2002-2004 and 2015-2017, Spring annually, 250 students

**Co-Director, Neuroanatomy Lab:** Supervision of all 11 neuroscience labs, exam preparation and lab organization.

**2018-** Teaching in the labs and preparation of exams

**Medical Student Pre-Entry Program, McGovern Medical School**, 2002-present, summer semester annually, 30-35 students

**Course Director:** Prepare and organize all course materials, and deliver all lectures.

**Lab Director:** Instruct and supervise cadaver dissection of all labs.

**National Youth Leadership Forum** (high school students), 2002-present, summer semester annually, 200 students, supervise the Gross Anatomy lab tour.

**Anatomy Dissection, McGovern Medical School**, 2008-present, 4<sup>th</sup> year elective and mini-elective, September-April annually, 20-30 students per year

**Course Instructor:** Guide and supervise student dissections and weekly presentations; and help in course and lab organization.

**Functional Anatomy in Upper Limb Spasticity and Cervical Dystonia**, Oct, 2011-2014, 30 residents and fellows of Baylor College of Medicine, McGovern Medical School and The University of Texas Medical Branch at Galveston. Developed and delivered 1 lecture and prepared and developed materials to guide and supervise whole day lab.

**Gastrointestinal System Module, McGovern Medical School**, 2017-present

Deliver 1 lecture to 250 MSII students

**Beijing Program, McGovern Medical School**, 2018- , spring annually, senior elective course, 4-16 students per year

**Course director:** Spend the entire month of April in Capital Medical University, Beijing, P. R. of China, overseeing students for mini-rotation in affiliated hospital.

**Applied Anatomy, McGovern Medical School, 2019-**, spring and fall annually, senior elective course, 60-90 students (Career focus tracking),  
**Course director:** desire and organize the course, guide and supervise student's dissections and weekly presentation

#### **PAST TEACHING RESPONSIBILITIES:**

**Gross Anatomy, Xi'an Medical University, P. R. of China, 1982-1983, Lecture and Lab Instructor** for 30 medical students, developed and delivered all lectures (60) and supervised all labs (60).

**Systematic Gross Anatomy, Yangzhou Medical School, P. R. of China, 1980-1992, Lecture and Lab Instructor** for 30 medical students and 50 Traditional Chinese medical students annually, developed materials and delivered all lectures (around 60), guided and supervised all labs, organized course, created syllabus, and prepared all exams.

**Topographic Gross Anatomy, Yangzhou Medical School, P. R. of China, 1980-1992, Lecture and Lab Instructor** for 30 medical students and 50 Traditional Chinese medical students annually, developed and delivered all lectures (around 35), developed and directed all labs, organized course, created syllabus, and prepared exams.

**Gross Anatomy, School of Dentistry at UTHealth, 1999-2015, spring semester annually, 80-105 students**  
**Course:** Attended all lectures. Was responsible for development of course organization, syllabus creation, and exam preparation for my lectures.  
**Lecturer:** Delivered 6-7 lectures.  
**Lab Director:** Responsible for 33 labs and 5 exam review sessions. Responsibilities included: organization and development of instructional materials, including dissections and oral and visual presentation materials for each session; syllabus creation; and exam preparation. In addition, was responsible for developing and leading weekend and pre-exam lab reviews.

**Neuroscience, School of Dentistry at UTHealth, 2008-2015, spring semester annually, 80-103 students**  
**Course:** Was responsible for development of course organization, syllabus creation, and exam preparation for my lectures.  
**Lecturer:** Developed and delivered 6 lectures.

#### **INNOVATIONS IN EDUCATIONAL METHODS:**

1. **Production of Anatomy Dissection Video Series (2006-present).** Since 2003, I have dissected a cadaver in advance for students to use as a reference during lab and for review afterward. I was concerned that students who were not assigned to labs might not have sufficient resources to keep pace with the instruction. Therefore, my dissection was captured on video for streaming

over the internet. In 2006, we collaborated with UT/TV to produce a pilot episode. Even though other dissection video series were available over the internet, student response to the pilot was excellent due to my dissection video showing not only the structures of the human body, but also how to dissect out these structures. However, the cost of working with UT/TV was high, and we decided to produce the video series ourselves. During fall 2007, my dissections of a single male cadaver and the pelvis and perineum of a female cadaver were recorded. The videos were organized into 43 chapters that were made available to students. In addition, in 2014, I produced a three-chapter Gross Anatomy review video (Block I, II, and III). These videos have been consistently ranked as the most useful web resource by students since 2007 (average student evaluation score of 3.7/4.0). Since 2016, I have been using a high-definition camcorder to capture new dissection videos. The raw footage of these videos are being edited to reduce their duration and to add titles, voice-over narrations and annotations such as labels and arrows.

2. **Weekend Gross Anatomy Reviews and Pre-Exam Reviews (2001-present).** During my tenure, I have been committed to education and innovation in the Gross Anatomy course. Since 2001, I have consistently held weekend Gross Anatomy reviews and pre-exam block reviews to help students better understand the material outside of the classroom. I am in the lab almost every weekend to help students with dissections as well as to help them review the structures and clinical correlations.
3. **Gross Anatomy Teaching**
  - A. Curriculum development and organization of course materials to promote team-based learning to enhance the integration of basic science concepts and the application of these concepts to solving clinical problems (2004-present).
  - B. Service as key player in organizational changes and development of curriculum and course materials to promote the integration of Gross Anatomy and Introduction to Clinical Medicine (2001-present).

## **PUBLICATIONS:**

### **A. Abstracts and Poster Presentations**

1. **Zhang, H.**, Byrne, J.H., Cleary, L.J. Topographical organization of sensory neurons in the ventrocaudal cluster of the pleural ganglion of *Aplysia*. *Soc. Neurosci. Abstr.*, 19: 813, 1993.
2. **Zhang, H.**, Byrne, J.H., Cleary, L.J. Characterization of a morphologically distinct subset of sensory in the pleural ganglion on *Aplysia*. *Soc. Neurosci. Abstr.*, 21: 1680, 1995.
3. Wainwright, M., **Zhang, H.**, Byrne, J.H. and Cleary, L.J. Morphological correlates of long-term sensitization training in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.*, 23: 1334, 1997.

4. **Zhang, H.**, Yuksel, M., Endo, S., Eskin, A., Byrne, J.H. and Cleary, L.J. Distribution of apTBL-1 in the CNS of *Aplysia*. *Soc. Neurosci. Abstr.*, 23: 1334, 1997.
5. Wainwright, M.L., **Zhang, H.**, Byrne, J.H., Cleary, L.J. Structure plasticity of tail sensory neurons in *Aplysia*. *Soc. Neurosci. Abstr.*, 25: 1611, 1999.
6. Wainwright, M.L., **Zhang, H.**, Byrne, J.H., Cleary, L.J. Stability of tail sensory neuron structure following one day of long-term sensitization training in *Aplysia*. *Soc. Neurosci. Abstr.*, 26: 1524, 2000.
7. **Zhang, H.**, Zwarjes, R., Yuksel, M., Eskin, A., Byrne, J.H., Cleary, L.J. 5HT increases the synthesis of apTBL-1 protein in pleural sensory neurons on *Aplysia*. *Soc. Neurosci. Abstr.*, 26: 1524, 2000.
8. Wainwright, M.L., **Zhang, H.**, Byrne, J.H., Cleary, L.J. Massed training does not produce long-term sensitization in the tail-siphon withdrawal reflex of *Aplysia*. *Soc. Neurosci. Abstr.*, 27, 2001.
9. **Zhang, H.**, Wainwright, M.L., Byrne, J.H., Cleary, L.J. Quantification of contacts among sensory, motor and serotonergic neurons in the pedal ganglion of *Aplysia*. *Soc. Neurosci. Abstr.*, 27, 2001.
10. Kass J.S. Chiou-Tan F.Y., Harrell J., **Zhang H.**, Taber K.H. Sectional neuroanatomy of the pelvic floor. *American Academy of Physical Medicine and Rehabilitation*, poster, 11/8/2008.
11. **Zhang, H.**, Cleary, L.J. Production of a series of Gross Anatomy dissection videos. *25<sup>th</sup> Annual Meeting of American Association of Clinical Anatomists*, Abstract #119, 2008.
12. Kass, J.S., Taber K.H., Harrell J., **Zhang H.**, Chiou-Tan F.Y. Sectional neuroanatomy of the pelvic floor", *Intl Congress Clinical Neurophysiology*, Kobe, Japan, Oct 28-Nov 1, 2010.
13. Sanchez, O., Harrell. J.S., Chiou-Tan. F.Y., **Zhang, H.**, Taber. K.H., Procedure-oriented sectional anatomy of the elbow. *American Academy of Physical Medicine and Rehabilitation Annual Assembly*, Orlando, FL, November 17-20, 2011.
14. Chiou-Tan, F.Y., Harrell, J.S., **Zhang, H.**, Sanchez, O., Taber, K.H. Procedure-oriented sectional anatomy of the wrist and hand, *The 2011 American Academy of Physical Medicine and Rehabilitation Annual Assembly*, Orlando, FL, November 17-20, 2011.
15. Sanchez, O, Harrell, J,S,, Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. , Procedure-oriented sectional anatomy of the hip region, *The 2012 American Academy of Physical Medicine and Rehabilitation Annual Meeting*, Las Vegas, NV, February 28-March 3, 2012.
16. Sanchez, O., Harrell, J.S., Chiou-Tan F.Y., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the elbow, *J Comput Assist Tomogr*, 36 (1), 2012.

17. Pandit, S., Stimming, E., Harrell, E.F., John, J., Taber K.H., **Zhang, H.**, Chiou-Tan, F.Y., Procedure-oriented sectional anatomy of the knee. *American Academy of Physical Medicine and Rehabilitation Annual Assembly and Technical Exhibition*, Atlanta, GA, November 15-18, 2012.
18. Taber, K. H., Cianca, J., **Zhang, H.**, Stimming, E., Pandit, S., John, J., Chiou-Tan, F.Y.; Procedure-oriented torsional anatomy of the proximal arm for spasticity injection. *American Academy of Physical Medicine and Rehabilitation Annual Assembly and Technical Exhibition*, San Diego, CA, November 13-16, 2014.
19. Cianca, J., Chiou-Tan, F.Y., Pandit, S., Sindhu, **Zhang, H.** Identification of the anterior-lateral ligament in a cadaver using muscular-skeletal ultrasound, a case report. Association of Academic Physiatrists Annual Meeting, San Antonio, Texas, March 10-March 14, 2015.

### **Refereed Original Articles in Journals**

1. **Zhang, H.**, Sun, Q.H., Ma, H. Anatomy study of sphenopalatine foramen and neighboring structures. *Acta Academiae Medicine Nanjing*. 7: 66-71, 1987.
2. **Zhang, H.**, Sun, Q.H., Ma, H. Applied anatomy of sphenopalatine foramen and vidian canal. *Chinese Journal of Ophthalmology and Otorhinolaryngology*. 4: 43-49, 1988.
3. Liu, Q.R., Hattar, S., Endo, S. Macphee, K., **Zhang, H.**, Cleary L. J., Byrne, J.H., Eskin, A. A developmental gene (Tolloid/ BMP-1) is regulated in *Aplysia* neurons by treatments that induce long-term sensitization. *J. Neurosci*. 17: 755-764, 1997.
4. Wainwright, M.L., **Zhang, H.**, Byrne, J.H., Cleary, L.J. Localized neuronal outgrowth induced by long-term sensitization training in *Aplysia*. *J. Neurosci*. 22: 4132-4141, 2002.
5. **Zhang H.**, Wainwright, M., Byrne, J.H., and Cleary, L.J. Quantitation of contacts among sensory, motor, and serotonergic neurons in the pedal ganglion of *Aplysia*. *Learn. Mem.* 10: 387-393, 2003. **The figure from my article was featured on the cover of the journal.**

**For the following 16 sectional anatomy papers, I was the only anatomy expert on the team and my contributions were the identification of the structures and nerve innervation in each section. My efforts were a key aspect of these research publications.**

6. Chiou-Tan, F.Y., Dural, A., **Zhang, H.**, McClendon, E., Hayman, L.A., Taber, K.H. Sectional anatomy of the neck. *J. Comput. Assist. Tomogr.* 28(2) 295-298, 2004. **This paper was selected from recent publications indexed in the Web of Science as part of an international study of scientific research projects.**
7. Goktepe, A.S., Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. Sectional neuroanatomy of the face. *J. Comput. Assist. Tomogr.* 28(6):865-869, 2004.



8. Chiou-Tan, F.Y., Miller, J.S., Goktepe, A.S., **Zhang, H.**, Taber, K.H. Sectional neuroanatomy of the upper thoracic spine and chest. *J. Comput. Assist. Tomogr.* 29(2):281-285, 2005.
9. Miller, J.S., Goktepe, A.S., Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. Sectional neuroanatomy of the middle thoracic spine (T5-T8) and chest. *J. Comput. Assist. Tomogr.* 30(1): 161-164, 2006.
10. Miller, J.S., Goktepe, A.S., Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. Sectional neuroanatomy of the lower thoracic spine (T9-T12) and chest. *J. Comput. Assist. Tomogr.* 31(1)160-164, 2007.
11. Chiou-Tan, F.Y., Miller, J.S., **Zhang, H.**, Kass, J.S., Taber, K.H. Sectional neuroanatomy of the lumbosacral spine (L1-S5). *J. Comput. Assist. Tomogr.* 31(5):826-9, 2007.
12. Chiou-Tan, F.Y., Miller, J.S., **Zhang, H.**, Kass, J.S., Taber, K.H. Sectional anatomy of the shoulder. *J. Comput. Assist. Tomogr.* 33(5):814-7, 2009.
13. Kass, J.S., Chiou-Tan, F.Y., Harrell, J.S., **Zhang, H.**, Taber, K.H. Sectional neuroanatomy of the pelvic floor. *J. Comput. Assist. Tomogr.* 34(3):473-7, 2010.
14. Sanchez, O., Harrell, J.S., Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the elbow. *J. Comput. Assist. Tomogr.* 589(12):2923-4, 2011.
15. Sanchez, O., Harrell, J.S., Chiou-Tan, F.Y., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the elbow. *J. Comput. Assist. Tomogr.* 36(1):157-160, 2012.
16. Chiou-Tan, F.Y., Harrell, J.S., Furr-Stimming, E., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the wrist and hand. *J. Comput. Assist. Tomogr.* 36(4):502-504, 2012.
17. Harrell, J.S., Chiou-Tan, F.Y., Pandit, S., Furr-Stimming, E., **Zhang, H.**, Taber K.H. Procedure-oriented sectional anatomy of the hip. *J. Comput. Assist. Tomogr.* 38(1):142-5, 2014.
18. Chiou-Tan, F.Y., Pandit, S., Harrell, J.S., Furr-Stimming, E., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the knee. *J. Comput. Assist. Tomogr.* 38(2):325-8, 2014.
19. Zhao, X.R., Sun, G.H., **Zhang, H.**, Ting, S.M., Song, S., Gonzales, N., Aronowski, J. Polymorphonuclear neutrophil in brain parenchyma after experimental intracerebral hemorrhage. *Translational Stroke Research.* 5(5):554-61, 2014.
20. Furr-Stimming, E., Chiou-Tan, F., Harrell, J.S., **Zhang, H.**, Taber, K.H. Procedure-oriented sectional anatomy of the ankle. *J. Comput. Assist. Tomogr.* 38(6):992-5, 2014.

21. Chiou-Tan, F.Y., Furr-Stimming, E., John, J., Harrell, J.S., **Zhang, H.**, Taber, K.H.  
Procedure-oriented sectional anatomy of the foot. *J. Comput. Assist. Tomogr.* 39(1):140-142, 2015.

## **B. Books**

Toy, E., Ross, L., **Zhang, H.**, Papasakalariou, C. Case Files Anatomy (third edition) New York: McGraw-Hill, 2014.

## **C. Other Professional Communications**

### **Invited Lectures:**

Medical School, Yangzhou University, P. R. of China, “Cervical Anatomy and Clinical Correlations,” June 2007

Medical School, Yangzhou University, P. R. of China, “Gross Anatomy Teaching: Yesterday, Today and Tomorrow,” December 2010

McGovern Medical School (*formerly The University of Texas Medical School at Houston*), Allergan Cadaver Course, “Functional Anatomy in Upper Limb Spasticity,” June 2011 and June 2015

Peabody Orthopedic Surgical Center, MA, “Cervical Dystonia and Upper Limb Spasticity,” August 2011

The University of Texas Medical Branch and Baylor College of Medicine, Houston, Cadaver Course: “Cervical Dystonia and Upper Limb Spasticity,” September 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

Medical School, Yangzhou University, P. R. of China, “Hernias and Related Anatomy,” June 2012

Medical School, Minnesota University, “Upper Limb Specificity and Anatomy,” June 2012

The University of Texas Medical Branch and Baylor College of Medicine, Houston, Cadaver Course: “Nerve Entrapments in Upper Limb Spasticity,” February 2014

Medical School, Yangzhou University, P. R. of China, “Experiment Technology of the Animals” and “Medical Education in USA,” June 2014

Camp Cardiac, Rice University, “Introduction to the Anatomy of the Heart and Dissection,” July 2015

McGovern Medical School at Houston, Allergan Cadaver Course, “Functional Anatomy in Lower Limb Spasticity,” Sept. 2017

Medical School, Yangzhou University, P. R. of China, April 2019, “The pathway to become a medical doctor in United State” April, 2019

**Video Series:**

**Zhang, etc, Anatomy Dissection Video series** (New with HD camcorder, access through <https://uth.instructure.com/courses/47245>)

**Zhang, H.,** Cleary, L.J. Anatomy Dissection Video Series. 43 Chapters (*access through <https://uthvideo.uth.tmc.edu/Panopto/Pages/Sessions/List.aspx#folderID=%22a1f7333e-f7a1-42eb-b53a-999fd5950402%22&folderSets=3&maxResults=250>*)

**Zhang, H.** Anatomy Review Video for Block I, Block II and Block III (*access through <https://uthvideo.uth.tmc.edu/Panopto/Pages/Sessions/List.aspx#folderID=%22a1f7333e-f7a1-42eb-b53a-999fd5950402%22&folderSets=3&maxResults=250>*)