

QING HANG LI, MD, PhD

Office Address Department of Neurosurgery
4160 John R. Suite 930
Detroit, Michigan 48201

Office Telephone 313-745-8393

E-Mail qli@med.wayne.edu

EDUCATION

PhD, Bioengineering Unit 1989 - 1993
University of Strathclyde, Glasgow, Scotland, United Kingdom

MS, Biomechanics in Orthopaedics 1986 - 1989
Postgraduate Medical College of PLA China, Beijing, China

MD 1978 - 1982
Inner Mongolia Medical College, Hohhot, Inner Mongolia, China

TRAINING

Staff, Orthopaedics 1986 - 1989
Postgraduate Medical College of China, Beijing, China

Resident, Orthopaedics 1983 - 1986
Beijing General Hospital, Beijing, China

Intern, Radiology, Emergency, and Orthopaedics 1982 - 1983
Beijing General Hospital, Beijing, China

FACULTY APPOINTMENTS

Assistant Professor, Neurosurgery 1996 - Present
Wayne State University, Detroit, Michigan

Assistant Professor, Bioengineering Center 1993 - 1995
Wayne State University, Detroit, Michigan

OTHER PROFESSIONAL APPOINTMENTS

Stereotactic System Engineer, Neurosurgery 1995 - Present
Wayne State University, Detroit, Michigan

MAJOR PROFESSIONAL SOCIETIES

- American Society of Biomechanics
- Chinese Medical Association
- European Society of Biomechanics
- International Society of Computer Aided Surgery
- International Society for Optics and Photonics

HONORS AND AWARDS

Best Paper Candidate for Clinical Biomechanics International Society of Biomechanics	1994
Best Paper Candidate for Clinical Biomechanics Europe Society of Biomechanics	1992
Travel Award to Singapore University of Strathclyde, Glasgow, Scotland, United Kingdom	1990
David Livingstone Bursary University of Strathclyde, Glasgow, Scotland, United Kingdom	1989 - 1992
Overseas Research Student Award The CVCP of the U.K.	1989 - 1992
Best Postgraduate Student Award Postgraduate Medical College of China, Beijing, China	1986
Best Undergraduate Student Award Inner Mongolia Medical College, Hohhot, Inner Mongolia, China	1978 - 1982

GRANTS, CONTRACTS, AND OTHER FUNDING

Previously Funded Grants and Contracts

Integration of Bioengineering & Biocomputing to Advance Michigan Computer-Assisted Surgery Research MLSC-Michigan Life Sciences Corridor, \$3,377,560. Co-Investigator.	2003 - 2006
Co-Investigator, National Air Space Administration, \$450,000.00	2000 - 2002
Hip Fractures Grant Whitaker Foundation, \$25,000.00	1994 - 1995
Research Development Grant Wayne State University, Detroit, Michigan, \$25,000.00	1993 - 1994

PUBLICATIONS

Peer-Reviewed Publications

1. Shen J, Kassir MA, Wu J, Zhang Q, Zhou S, Xuan SY, **Li QH**, Ye Y, Hu J: MR Volumetric Study of Piriform-Cortical Amygdala and Orbitofrontal Cortices: The Aging Effect. *PLoS ONE* 09/2013; 8(9):e74526.
2. Li M, Hu J, Miao YW, Shen H, Tao D, Yang Z, **Li QH**, Xuan SY, Raza W, Alzubaidi S, Haacke M: In Vivo Measurement of Oxygenation Changes after Stroke Using Susceptibility Weighted Imaging Filtered Phase Data. *PLoS ONE* 05/2013; 8(5):e63013.
3. Kaur G, Tan J, Alam M, Chaudhary V, Chen D, Dong M, Eltahawy H, Fotouhi F, Gammage C, Gong J, Grosky W, Guthikonda M, Hu J, Jeyaraj D, Jin X, King A, Landman J, Lee J, **Li QH**, Lufei H, Morse M, Patel J, Sethi I, Shi W, Yang K, Zhang Z: CASML: a comprehensive software / toolkit for image-guided neurosurgeries. *The International Journal of Medical Robotics and Computer Assisted Surgery*. 2(2): 123-138, 2006
4. Zamorano L, **Li Q**: Robotics in Neurosurgery: State of the Art and Future Technological Challenges. *Journal of Medical Robotics and Computer Assisted Surgery*. 1(1):1-16; 2004
5. Gonzalez-Martinez JA, Zamorano L, **Li QH**, Diaz FG: Interactive image-guided management of colloid cysts of the third ventricle. *Minimally Invasive Neurosurgery*. 46(4):193-7, 2003
6. Zamorano L, **Li Q**, Tekyi-Mensah S, Gaspar L, Fontanesi J, Levin K: Permanent Iodine-125 Interstitial Radiation Therapy in the Treatment of Non-Glioblastoma Multiforme High Grade Gliomas. *Stereotactic and Functional Neurosurgery*. 81:10-17; 2003
7. **Li Q.H.**, Zamorano L, Pandya A., Perez R., Gong J.X. and Diaz G.F: The application accuracy of the NeuroMate robot - A quantitative comparison with frameless and frame-based surgical localization systems. *Computer Aided Surgery*. 7:90-98, 2002
8. Hernandez L, Zamorano L, Sloan A, Fontanesi J, Lo S, Levin K, **Li Q**: Gamma knife radiosurgery for renal cell carcinoma brain metastases. *Journal of Neurosurgery*. 97 (5 Suppl): 489-493, 2002
9. Gonzalez-Martinez J, Hernandez L, Zamorano L, Sloan A, Levin K. **Li Q**: Gamma knife radiosurgery for intracranial metastatic melanoma: a 6-year experience. *Journal of Neurosurgery*. 97 (5 Suppl): 494-498, 2002
10. Gonzalez-Martinez J, Guthikonda M, Vellutini E, Zamorano L, **Li Q**, Kupski W, Diaz F: Intradural Invasion of Chordoma: Two Case Reports. *Skull Base: An Interdisciplinary Approach* 12: 155-161, 2002
11. Zamorano L, **Li Q.H.**, Keiser M, Martinez J, Diaz F: 748 Outcomes Analysis in Image-guided Neurosurgery. *Neurosurgery* 01/2001; 49(2). DOI:10.1097/00006123-200108000-00112
12. Li Q.H., Zamorano L., Jiang Z.W., Gong J.X. and Diaz G.F: A Quantitative Comparison of the Application Accuracy between NDI and IGT Tracking Systems. *SPIE Proceedings Series*:

3595: 38-48, 1999

13. **Li Q.H.**, Zamorano L, Jiang Z.W., Gong J.X. and Diaz G.F: Influence of different medical images on the application accuracy during image-guided surgery. SPIE Proceedings Series: 3658: 232-240, 1999
14. **Li Q.H.**, Zamorano L, Jiang Z.W., Gong J.X. Pandya A., Perez R. and Diaz G.F: Effect of optical digitizer selection on the application accuracy of a surgical localization system—A quantitative comparison between the OPTOTRAK and FlashPoint tracking systems. Computer Aided Surgery. 4:314-321. 1999
15. **Li Q.H.**, Jiang Z.W., Zamorano L, Buciu R., Vinas F., and Diaz F: The comparison of application accuracy of frame-based and frameless surgical localization systems and affecting factors. SPIE Proceedings Series: 2976: 194-204, 1997
16. Zamorano L, Vinas F., Buciu R., Jiang Z., **Li Q** and Diaz F: Use of an open stereotactic ring for neurosurgical procedures. Minimally Invasive Neurosurgery. 40: 79-82, 1997
17. Vinas F., Zamorano L, Buciu R., **Li Q.H.**, Shamsa F., Jiang Z., and Diaz F: Application accuracy study of a semipermanent fiducial system for frameless stereotaxis. Computer Aided Surgery. 2:257-263, 1997
18. Siu S.T., **Li Q.H.**, Liu S.Q. and Yu XJ: The treatment of intertrochanteric fracture with four Steinmann's pins. Chung Hua Wai Ko Tsa Chih (J. Chinese Surgery) 30(2): 107-110, 1992
19. Siu S.T., He T.C., **Li Q.H.** and Guo DZ: The design and application of IGI-3 comprehensive gait measure system. Journal of Biomechanics (China) 6: 79-84, 1991
20. Siu S.T., **Li Q.H.**, He T.C. and Chen QG: Comparison of different internal fixation in experimental intertrochanteric fracture. Chung Hua Wai Ko Tsa Chih (J. Chinese Surgery) 29(4): 251-255, 1991
21. **Li Q.H.**, Nicol A.C. and Siu ST: The study and application of inertia measurement apparatus to gait. The Proceedings of Sixth International Conference on Biomedical Engineering. (Singapore) 111-114, 1990
22. **Li Q.H.**, Nicol A.C. and Siu ST: Biomechanical evaluation of fixation for the unstable intertrochanteric fracture. The Proceedings of Sixth International Conference on Biomedical Engineering. (Singapore) 389-392, 1990
23. **Li Q.H.**, Siu S.T. and Liu SQ: The treatment of trochanteric fractures of femur with four Steinmann's pins. The Proceedings of the Third Chinese Traditional Medicine Orthopaedic and Trauma Conference. 90-96, 1988
24. **Li Q.H.**, Siu S.T. and Liu SQ: Biomechanical evaluation of the fixation for the unstable intertrochanteric fractures with four Steinmann's pins. The Proceedings of the Third Orthopaedic Conference of PLA. 165-169, 1988

Published Abstracts:

1. **Li Q**, Schreckinger M, Eltahawy H: Accuracy analysis and validation for stereotactic deep brain stimulation in functional neurosurgery. AANS Annual Meeting, Chicago 2016.
2. **Li Q**, Nyame V, Folbe A and Guthikonda M: Computer assisted endoscopic transsphenoidal procedure with the combined medical image protocols for the resection of skull base tumors. AANS annual Meeting, Washington DC 2015
3. **Li Q**, Hong D, Klein E and Eltahawy H : Intraoperative computed tomography-integrated with surgical navigation for the pedicle screw insertion in complicated scoliosis patient. CNS annual meeting 2013.
4. **Li Q**, Rhiew R, Lee A and Guthikonda M: Computer Assisted Endoscopic Transsphenoidal Procedure for the Resection of Skull Base Tumors. AANS Annual Meeting, Chicago, Illinois, 2008
5. **Li Q**, Lee A, Tan J and Guthikonda M: Computer assisted endoscopic transsphenoidal procedure for the treatment of pituitary tumors. CNS Annual Meeting, Orlando Florida, 2008
6. **Li Q**, Guthikonda M: The current development of computer assisted endoscopic transsphenoidal procedure for the resection of pituitary tumor. CNS Annual Meeting, San Diego, California, 2007
7. **Li Q**, Gong J, Guthikonda, M and Yang K. The application of intraoperative MRI (iMRI) in different neurosurgical procedures-Initial Experience with Intraoperative MRI. The 74th Annual Meeting of the American Association of Neurological Surgeons, 2006
8. **Li Q**, Guthikonda M: The Application of Intraoperative MRI (iMRI) in the Transsphenoidal Resection of Pituitary Tumors Procedures: Initial Experience with Intraoperative MRI. CNS Annual Meeting. Chicago, Illinois, 2006
9. Zamorano L, **Li Q**., Jain S., Fontanesi J., Levin K., Barger J. Brachytherapy with I-125 Permanent Implant combined with Sequential Gliadel in the Management of GBM: a novel approach. The 73rd Annual Meeting of The American Association of Neurological Surgeons. April 16-21, 2005. New Orleans, Louisiana
10. **Li Q**, Gong J, Zamorano L, Yang K, and Guthikonda M. The detection of brain shift using intraoperative MRI-Initial Experience with Intraoperative MRI. The 73th Annual Meeting of the American Association of Neurological Surgeons. April 16-21, 2005. New Orleans, Louisiana
11. **Li Q**, Gong J, Yang K, Chaudhary V and Guthikonda M. The application of intraoperative MRI (iMRI) in different neurosurgical procedures-Initial Experience with Intraoperative MRI. Miccai 2005. Palm Springs, California
12. **Li Q**, Gong J, Guthikonda, M and Yang K. The detection of brain shift using intraoperative MRI. CNS 2005, Boston, Massachusetts
13. Zamorano L, **Li Q**, Levin K, Barger G. Brachytherapy with I-125 Permanent Implant Combined with Sequential Gliadel in the Treatment of Patients with GBM. CNS 2005, Boston, Massachusetts
14. Zamorano L, **Li Q**., Gaspar L, Fontanesi J., Levin K. Permanent I-125 Interstitial Radiation Therapy in the Treatment of Low-grade Gliomas. The 72nd Annual Meeting of the American Association of Neurological Surgeons. May 1-6, 2004. Orlando, Florida
15. **Li Q**., Marchese E, Pandya A, Zamorano A. Quantitative Comparison between the Heads-up-display (HUD) and Common Monitor in Endoscopic Neurosurgery. 17th International Congress of Computer Assisted Radiology and Surgery. (CARS 2004), June 26-29, 2004, Chicago, Illinois

16. Zamorano L, **Li Q.**, Jain S, Fontanesi J., Levin K., Barger G. Sequential Gliadel and Brachytherapy with I-125 Permanent Implant in the Management of GBM: a novel approach. Congress of Neurological Surgeons Annual Meeting, Oct 16-21, 2004, San Francisco, California
17. Zamorano L, **Li Q.**, Jain S, Gasper L, Fontanesi J., Levin K. Use of The RTOG Recursive Partitioning Analysis to Validate The Survival Benefit of Permanent 125 I Interstitial Radiation Therapy in the Primary Treatment of Malignant Gliomas. Congress of Neurological Surgeons Annual Meeting, Oct 16-21, 2004, San Francisco, California
18. Zamorano L, Hernandez L, Pandya A., **Li Q.** Web-base Teaching Tools for Residents and Fellows in Stereotactic Neurosurgery and Radiosurgery. The 71st Annual Meeting of the American Association of Neurological Surgeons. April 25-May 1, 2003. San Diego, California
19. Marchese M., **Li Q.**, Zamorano L, Pandya A. Quantitative Comparison between the Heads-up-display (HUD) and Common Monitor in Endoscopic Surgery. The 71st Annual Meeting of the American Association of Neurological Surgeons. April 25-May 1, 2003. San Diego, California
20. Martinez J, Zamorano L, De la Torre R., **Li Q.**, Diaz F. Association of Anatomical Functional Areas and Neurological Outcome in Malignant Gliomas: Results in 145 Patients Undergoing Awake Craniotomy. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
21. Zamorano L, **Li Q.**, Pandya A., Gong J., Diaz F. Interactive Image-Guided Neurosurgery With the Stryker Wireless Navigation System. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
22. Gong J, Zamorano L, **Li Q.**, Pandya A., Diaz F. Development of Universal Instrumentation for Advanced Neuronavigation System. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
23. Gong J, Zamorano L, **Li Q.**, Pandya A., Diaz F. Improvement of Safety for Surgical Navigation Instrument: 5-Year Experience at Wayne State University. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
24. **Li Q.**, Zamorano L, Martinez J, Pandya A., Gong J., Diaz F. Medical Robotics in Open Neurosurgery. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
25. Martinez J, Zamorano L, Sloan A., Fontanesi J., Levin K., **Li Q.**, Diaz F. Prognostic Factor Analysis for Melanoma Brain Metastases Treated With Radiosurgery. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
26. **Li Q.**, Zamorano L, Gong J., Pandya A., Diaz F. Brain Deformation During Image-Guided Stereotactic Biopsy: A Case Report. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
27. Gong J, Zamorano L, **Li Q.**, Pandya A, Diaz F. Improvement of Safety for Surgical Navigation Instrument-Five Years' Experience in Wayne State University. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
28. Gong J, Zamorano L, **Li Q.**, Pandya A, Diaz F: Development of Universal Instrumentation for Advanced Neuronavigation System. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois

29. Hernandez L., Zamorano L., Sloan A., Levin K., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Surgery for Brain Metastases. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
30. Hernandez L., Zamorano L., Higgins M., Levin K., Sloan A., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Surgery for Renal Cell Carcinoma Brain Metastases. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
31. Zamorano L., **Li Q.**, Diaz F. Outcomes Analysis in Image-Guided Neurosurgery. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
32. Zamorano L., Fontanesi J., Levin K., **Li Q.**, Diaz F. Permanent Iodine-125 Interstitial Radiation Therapy in the Treatment of Non-GBM High-Grade Gliomas. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
33. Zamorano L., **Li Q.**, Pandya A, Gong J, Diaz F. Interactive Image-Guided Neurosurgery with Stryker Wireless Navigation System. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
34. Martinez J., Zamorano L., Keole S., Levin K., Frazier A., **Li Q.**, Forman J., Diaz F., Fontanesi J. Survival Analysis of Patients With Glioblastoma Multiforme Treated With External Radiotherapy Followed by Gamma Knife Radiosurgery or Permanent Iodine-125 Implant Boost. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
35. Higgins M., Zamorano L., Hernandez L., Sloan A., Lo S., Levin K., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Radiosurgery for Intractable Facial Pain. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
36. Higgins M., Zamorano L., Hernandez L., Sloan A., Lo S., Levin K., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Surgery for Non-small Cell Lung carcinoma Brain Metastases. The 70th Annual Meeting of the American Association of Neurological Surgeons. April 5-11, 2002. Chicago, Illinois
37. Marchese M., Pandya A., Mahmoud M., Higgins M., **Li Q.**, Zamorano L. Quantitative Comparison between the Heads-up-display (HUD) and Common Monitor in Endoscopic Surgery. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania
38. Zamorano L., Hernandez L., Pandya A., **Li Q.** Web-based Teaching Tools for Residents and Fellows in Stereotactic Neurosurgery and Radiosurgery. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania
39. Hernandez L., Zamorano L., Sloan A., Levin K., Fontanesi J., **Li Q.**, Diaz F. Stereotactic Radiosurgery in Melanoma Brain Metastases. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania
40. Hernandez L., Zamorano L., Sloan A., Levin K., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Radiosurgery Treatment of Renal Cell Carcinoma Brain Metastases. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania
41. Hernandez L., Zamorano L., Sloan A., Levin K., Fontanesi J., **Li Q.**, Diaz F. Gamma Knife Radiosurgery for Brain Metastases. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania
42. Martinez J., Zamorano L., Sloan A., Fontanesi J., Levin K., **Li Q.**, Diaz F. Gamma Knife Radiosurgery for Metastatic Melanoma: An Analysis of Survival. Congress of Neurological Surgeons Annual Meeting, Sept 28 – Oct 3, 2002, Philadelphia, Pennsylvania.

43. Zamorano L., Pandya A., Siadat M., Gong J., **Li Q.**, Maida J. Augmented reality for tele-operations. Bioastronautics Investigators' Workshop, January 17-19, 2001, p 26-27
44. Pandya A., Siadat M., Gong J., **Li Q.**, Zamorano L., Maida J. Towards using augmented reality for neurosurgery. The 9th Annual Medicine Meets Virtual Reality Conference. January 24-27, 2001, Newport Beach, California, pp. 128-129
45. **Li Q.H.**, Zamorano L., Guthikonda M., Pandya M., Perez R., Diaz F. The Application Accuracy of Intraoperative Registration and Related Factors in Image Guided Neurosurgery. The 69th Annual Meeting of the American Association of Neurological Surgeons. April 21-26, 2001, Toronto, Canada
46. Zamorano L, **Li Q.H.**, Perez-de la Torre R, Elkhatib E., Pandya A. Robtic Open Neurosurgery: Initial experience. The 69th Annual Meeting of the American Association of Neurological Surgeons. April 21-26, 2001, Toronto, Canada
47. **Li Q.H.**, Zamorano L, Pandya A, Pittet P., Badano F. The Application Accuracy of Neuromate System. The 69th Annual Meeting of the American Association of Neurological Surgeons. April 21-26, 2001, Toronto, Canada
48. Perez De la Torre, Zamorano L., Elkhatib Esam., **Li Q.**, Diaz. F. Interactive Image-Guided Surgery In The Resection Of Cerebral Cavernous Angioma. The 69th Annual Meeting of the American Association of Neurological Surgeons. April 21-26, 2001, Toronto, Canada
49. Pandya A, Siadat, M., Zamorano, L, Gong, J., **Li. Q.**, Elkhatib E, J. Maida. Augmented Robotics for Neurosurgery. The 69th Annual Meeting of the American Association of Neurological Surgeons. April 21-26, 2001, Toronto, Canada
50. Martinez J, Zamorano J., **Li Q.**, Diaz F. Interactive image-guided endoscopic management of colloid cysts: A clinical outcome study. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept. 12-14, 2001, Adelaide, Australia
51. Martinez J, Zamorano J., Levin K, **Li Q.**, Diaz F. Prognostic factor analysis of melanoma brain metastases treated with radiosurgery. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept. 12-14, 2001, Adelaide, Australia
52. Martinez J, Zamorano J., Levin K, **Li Q.**, Diaz F. The effect of stereotactic radiosurgery on epilepsy associated with arteriovenous malformation: A clinical outcome study. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept. 12-14, 2001, Adelaide, Australia
53. Martinez J, Zamorano J., Levin K, **Li Q.**, Diaz F. Stereotactic radiosurgery for arteriovenous malformation of the brain: The experience of Wayne State University. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept.12-14, 2001 Adelaide, Australia
54. Martinez J, Zamorano J., Keole S., Levin K, **Li Q.**, Diaz F. Survival analysis of patients with glioblastoma multiforme treated with external radiosurgery followed by gamma knife radiosurgery or permanent Iodine-125 implant boost. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept. 12-14, 2001, Adelaide, Australia
55. Gonzalez-Martinez J., Zamorano L., De la Torre, R., Elkhatib E., Pandya A, **Li, Q.**, Keiser, M., Diaz, F. Interactive Image-Guided Endoscopic Management of Colloid Cysts: A Clinical Outcome Study. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
56. Gonzalez-Martinez J., Zamorano L., De la Torre, R., **Li, Q.**, Elkhatib E., Pandya A, Keiser, M., Diaz, F. Association of anatomical functional areas and neurological outcome in malignant gliomas: Results in 145 patients with awake craniotomy. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California

57. Gonzalez-Martinez J., Zamorano L., Fontanesi, J., Sloan, A., Garzon, S, **Li, Q.**, Diaz, F. Prognostic Factor Analysis for Melanoma Brain Metastases Treated with Radiosurgery. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
58. Gonzalez-Martinez J., Gordon V., Zamorano L., Levin K., Fontanesi J., Elkhatib E., De la Torre, R., Garzon, S. **Li, Q.**, Diaz, F. The Effect of Stereotactic Radiosurgery on Epilepsy Associated with Arteriovenous Malformation: A Clinical Outcome Study. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
59. Gonzalez-Martinez J., Gordon V., Zamorano L., De la Torre R., Garzon, S, Lodje, M., **Li, Q.**, Diaz, F. Stereotactic Radiosurgery for Arteriovenous Malformations of the Brain: The Experience of Wayne State University. Congress of Neurological Surgeons Annual Meeting. Oct 1-6, 2001, San Diego, California
60. Zamorano L., **Li Q.**, Keiser M., Martinez J., Diaz F. Outcomes analysis in image guided neurosurgery. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
61. Pandya A., Siadat M., **Li Q.**, Gong J., Zamorano J., Martinez J., Perez R., Maida J. Does Heads-up Display Improve Neurosurgical Endoscopic Procedure. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
62. Zamorano L., Martinez J., Perez-de la Torre R., **Li Q.**, Shamsa F., Elkhatib E., Diaz F. Interactive Image-Guided Neurosurgery and Functional Mapping in Malignant Gliomas: Clinical Outcomes and Analysis of Complications. Congress of Neurological Surgeons Annual Meeting, Oct 1-6, 2001, San Diego, California
63. **Li Q.H.**, Zamorano L., Gong J.X, Pandya A., Diaz G.F. The application accuracy of different registration methods in frameless computer assisted surgery. Computer Assisted Radiology and Surgery 14th International Congress, June 28-July 1, 2000
64. **Li Q.H.**, Zamorano L., Gong J.X, Pandya A., Diaz G.F. The application accuracy of different registration methods in frameless computer assisted neurosurgery. The 68th Annual Meeting of the American Association of Neurological Surgeons, April 2000
65. Pandya A, **Li QH**, Zamorano L, Perez-de la Torre D. The Application Accuracy of the Neuromate Robot - A Quantitative Comparison with Frameless Infrared and Frame Based Surgical Localization Systems. COAS USA 2000, Pittsburgh, Pennsylvania, June 15-17, 2000
66. **Li Q.H.**, Zamorano L., Guthikonda M, Pandya M., Perez R., Diaz F. The Application Accuracy of Intraoperative Registration and Related Factors in Image Guided Neurosurgery. Congress of Neurological Surgeons Annual Meeting, September 23-28, 2000, San Antonio, Texas
67. **Li Q.H.**, Zamorano L, Pandya A, Pittet P., Badano F. The Kinematic Accuracy of Surgical Robots: Accuracy Evaluation of the Neuromate System. Congress of Neurological Surgeons Annual Meeting, September 23-28, 2000, San Antonio, Texas
68. Zamorano L, **Li Q.H.**, Perez-de la Torre R, Elkhatib E., Pandya A. Clinical Implementation of Robotic Open Neurosurgery: The Beginning of a New Era. Congress of Neurological Surgeons Annual Meeting, September 23-28, 2000, San Antonio, Texas
69. **Li Q.H.**, Zamorano L., Guthikonda M, Diaz F. Application accuracy of different registration methods in frameless computer assisted surgery. EUROPTO Conference, July 4-8, 2000, Amsterdam, Netherlands
70. **Li Q.H.**, Zamorano L., Jiang Z.W., Gong J.X., Diaz G.F. A Quantitative Comparison of the Application Accuracy between NDI and IGT Tracking Systems for the Image Guided Surgery. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999

71. **Li Q.H.**, Zamorano L, Jiang Z.W., Gong J.X., Diaz G.F. Image Guided Endoscopic Transnasal, Transseptal and Transsphenoidal Approach for Pituitary Tumors. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
72. Gong J, Zamorano L, MD, Jiang Z, **Li Q**, Diaz F. Cost Function Construction in Multi-Modalities Medical Image Registration With Adaptive Restricted Surface Matching. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
73. Gong J, Zamorano L, MD, Jiang Z, **Li Q**, Diaz F. 3D Segmentation in Neuro-image. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
74. Gong J, Zamorano L, MD, Jiang Z, **Li Q**, Diaz F. Intra-operative Registration of Universal Instruments for Advanced Neuronavigation System. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
75. Gong J, Zamorano L, MD, Jiang Z, **Li Q**, Diaz F. Intro-operative Computer-Surgeon Interface for Advanced Neuro-navigation System. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
76. Gong J, Zamorano L, MD, Jiang Z, **Li Q**, Diaz F. Tradeoff Analysis of Medical Image Registration Strategies in Computer Assisted Surgery System. The 67th Annual Meeting of the American Association of Neurological Surgeons, 1999
77. **Li Q.H.**, Holdener H.J., Zamorano L, King P., Jiang Z.W., Diaz F. Interactive Image Guidance for Complicated Spine Surgery. The 66th Annual Meeting of the American Association of Neurological Surgeons, 1998
78. **Li Q.H.**, Zamorano L, Jiang Z.W., Gong J, Yan X., Diaz F. The Affecting Factors on the Application Accuracy of Interactive Image Guided Surgical Localization Systems. The 66th Annual Meeting of the American Association of Neurological Surgeons, 1998
79. **Li Q.H.**, Zamorano L, Jiang Z.W., Gong J, Yan X., Diaz F. The Affecting Factors on the Application Accuracy of Interactive Image Guided Surgical Localization Systems. The 48th Annual Meeting of the Congress of Neurological Surgeons, 1998
80. **Li Q.H.**, Holdener H.J., Zamorano L, King P., Jiang Z.W., Vinas F., and Diaz F. Interactive image guidance for complicated spine surgery. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado. 193-194, 1997
81. Jiang ZW, Zamorano L, Buciu R, **Li Qinghang**, Popescu Adrian, Diaz Fernando G. Intraoperative Virtual Brain Extracts. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado, 1997
82. Vinas F, Zamorano L, **Li Q**, Jiang Z, Buciu R, Diaz F. Application Accuracy Study of a Fiducial Marker System as Compared to a Stereotactic Frame. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado, 1997
83. Jiang Z, Zamorano L, Muzik O, **Li Q**, Popescu A, Diaz Fe. Consistency Analysis for the Digitized Three-Dimensional Talairachís Coplanar Stereotactic Atlas of the Human Brain. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado, 1997
84. Zamorano L, Vinas F, Buciu R, Jiang Z, **Li Q**, Diaz F. New Design of an Open Stereotactic Ring for Conventional Stereotaxis and Interactive Image-Guided Surgery. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado, 1997
85. Zamorano L, Vinas F, Buciu R, Jiang Z, **Li Q**, Diaz F. Interactive Image-Guided Surgery, Registered Intraoperative Functional Mapping, and Awake Craniotomy: A Three-Arm Technique for Optimization of Resection of Intracranial Lesions. The 65th Annual Meeting of the American Association of Neurological Surgeons, Denver, Colorado, 1997
86. Zamorano L, Vinas F, Buciu R, Jiang Z, **Li Q**, Diaz F. Interactive Image-Guided Surgery, Registered Intraoperative Functional Mapping and Awake Craniotomy: A Three-Arm

- Technique for Optimization of Resection of Intracranial Lesions. The 47th Annual Meeting of the Congress of Neurological Surgeons, New Orleans, Louisiana, 1997
87. Jiang Z, Zamorano L, **Li Q**, Gong G, Buciu R, Diaz F. Automated Approach Evaluation for Pedicle Screw Insertion. The 47th Annual Meeting of the Congress of Neurological Surgeons, 1997
 88. **Li Q.H.**, Jiang Z.W., Zamorano L, Buciu R., Gong J., Diaz F. The analysis of affecting factors on the application accuracy of interactive image guided surgery. 19th International Conference of IEEE-EMBS, Chicago, 1997.
 89. **Li Q.H.**, Holdener H.J., Zamorano L, King P., Jiang Z.W., and Diaz F. Interactive image-guided spine surgery. The 46th Annual Meeting of the Congress of Neurological Surgeons. 287-288, 1996
 90. **Li Q.H.**, Cavanaugh J.M., Ozaktay A.C., and King A.I. The relationship between local facet load and nerve discharge rate in the lumbar facet and surrounding tissue. The 41st Annual Meeting of Orthopaedic Research Society, Orlando, Florida, February 13-16, 1995
 91. **Li Q.H.**, Cavanaugh J.M., Ozaktay A.C., Yang K.H. and King A.I. The observation of tissue load, deformation and strain in and around the lumbar facet joint. The 18th Annual Meeting of the American Society of Biomechanics, Columbus, Ohio. Oct. 13-15, 1994
 92. **Li Q.H.**, Nicol A.C. and Paul J.P. Biomechanical analysis of aided gait in total hip or total knee replacement patients. The Second World Congress of Biomechanics, Amsterdam, July 10-15, 1994
 93. **Li Q.H.**, Cavanaugh J.M., Ozaktay A.C. and King A.I. An initial investigation of the relationship between tissue load, deformation and neural discharge in and around the lumbar facet joint. International Society for the Study of the Lumbar Spine Conference, Seattle. June 20-25, 1994
 94. **Li Q.H.**, Nicol A.C. Kelly I.G. and Paul J.P: Biomechanical analysis of aided gait. J. Biomechanics. 26:884, 1993

Book Authorship, Editorship, and Chapters

1. Zamorano L, **Li Q**, Riew R. Robotic Applications in: Neurosurgery. Robotics in Surgery: History, Current and Future Applications. Ed. Russel Faust: 147-172, 2007
2. **Li Q.H.**, Zamorano L, Pandya A., Gong J.X. and Diaz G.F. The application accuracy of the NeuroMate robot - A quantitative comparison with frameless and frame-based surgical localization systems. Computer Assisted Radiology and Surgery. (CARS 2002) Edited by H.U. Lemke, M.W. Vannier, K. Inamura, A.G. Farman, K. Doi, and J. H. Reiber: 167-172
3. Pandya A, Siadat M, Zamorano L, Gong J, **Li QH**, Maida J, Kakadiaris I. Tracking Methods for Medical Augmented Reality. Medical Image Computing and Computer-Assisted Intervention: 1404-1405, 2001
4. Zamorano L, Perez R., and **Li QH**. Stereotactic Volumetric Resection of Malignant Gliomas. Neurosurgical Atlas, Volume Nine, Ed: Setti Rengachary: 113-122, 2000
5. **Li Q.H.**, Zamorano L, Jiang Z.W., and Diaz F. The application accuracy of the frameless implantable marker system and analysis of related affecting factors. Lecture Notes in Computer Science, Volume 1496. Eds by William M. Wells, Alan Cochester and Scott Delp: 253-260, 1998
6. **Li Q. H.**, Zamorano L, Jiang Z.W., Holdener H.J., King P., and Diaz F. Interactive Image Guided Surgery; the experience of Wayne State University. Advances in Bioengineering. ASME 1998 Annual Meeting: 251-252, 1997

7. **Li Q.H.**, Holdener H.J., Zamorano L., King P., Jiang Z.W., and Diaz F. Computer assisted insertion of pedicle screws. Lecture Notes in Computer Science 1131. Eds: Karl Heinz Hühne and Ron Kikinis: 571-581, 1996.

PRESENTATIONS

International/National

1. Li QH, Eltahawy H, Klein E and Guthikonda M: Intraoperative computed tomography image-integrated with navigation for the pedicle screw insertion. iOIS Annual Meeting (2014).
2. Perez de la Torre R., Zamorano L., Li Q., Samsha F., Diaz F.: (Preuss Award) Outcome of Awake Craniotomy and Functional Mapping Surgery of Eloquent Brain Lesions. Jorge A. Gonzalez-Martinez MD, PhD, (Cleveland Heights, OH). The 70th Annual Meeting of The American Association of Neurological Surgeons. April 5-11, 2002. Chicago
3. Gonzalez-Martinez J., Zamorano L., MD, Perez R., Elkhatib E., Li Q., Fontanesi J., Diaz F.: Brachytherapy: Acceptable treatment for recurrent Glioblastoma Multiforme (GBM). --- Role in the treatment of primary GBM is still a matter of debate. Oral Presentation at AANS/CNS Section on Tumors: Fifth Biennial Satellite Symposium. April 12, 2002 Chicago
4. Li Q.H., Zamorano L., Pandya A., Gong J.X. and Diaz G.F.: The application accuracy of the NeuroMate robot - A quantitative comparison with frameless and frame-based surgical localization systems. Oral Presentation at 16th International Congress of Computer Assisted Radiology and Surgery. (CARS 2002), Paris June 26-29, 2002
5. Martinez J, Zamorano J., Li Q., Diaz F.: Association of anatomical functional areas and neurological outcome in malignant gliomas: Results in 145 patients with awake craniotomy. The 13th Meeting of the World Society for Stereotactic and Functional Neurosurgery. Sept. 12-14, 2001, Adelaide, Australia
6. Li Q.H., Zamorano L., Guthikonda M, Diaz F.: Application accuracy of different registration methods in frameless computer assisted surgery. EUROPTO-Biomonitoring, surgical assist and guidance systems conference, 4-8 July, 2000, Amsterdam, Netherlands
7. SPIE Annual Conference: A Quantitative Comparison of the Application Accuracy between NDI and IGT Tracking Systems. San Jose, CA. 1999
8. Medical Image Annual Conference: Influence of different medical images on the application accuracy during image-guided surgery. Santiago, CA 1999
9. ASME Annual Conference: Interactive Image Guided Surgery-The experience of Wayne State University. Advances in Bioengineering First MICCAI: The application accuracy of the frameless implantable marker system and analysis of related affecting factors. Boston, 1998
10. SPIE Annual Conference: The Comparison of application accuracy of frame-based and frameless surgical localization systems and affecting factors. San Jose, CA. 1997
11. VBC 96. Computer assisted insertion of pedicle screws. Hamburg, Germany. 1999
12. The 18th Annual Meeting of the American Society of Biomechanics: The observation of tissue load, deformation and strain in and around the lumbar facet joint. Columbus, Ohio. Oct. 13-15, 1994
13. Europe Society of Biomechanics Biannual Conference: Biomechanical analysis of aided gait in total hip or total knee replacement patients. Rome, Italy. 1992