



Davud Sirjani, MD

Clinical Associate Professor, Otolaryngology (Head and Neck Surgery)

CLINICAL OFFICES

- **Otolaryngology - Head and Neck Surgery**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

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Bio

BIO

Dr. Sirjani graduated from the University of Arizona with Honors in Biochemistry and was awarded the most outstanding senior award for the college of sciences and the Centennial Achievement Award. He matriculated to the University of Arizona School of Medicine on the Dean's Scholarship.

He completed a residency in Otolaryngology at Washington University in St. Louis and a fellowship in Head and Neck Cancer and Microvascular reconstruction at the University of Washington in Seattle in 2009.

He joined the Division of Head and Neck Surgery in 2009 and, since 2012, has also served as Chief of Otolaryngology at the VA in Palo Alto. Dr. Sirjani has pioneered the use of telemedicine to provide complicated head and neck cancer care to remote VA satellite across the Pacific and Mountwaint West.

Under his leadership, the Stanford VA has become a premier hub for head and neck cancer care in the West Coast.

As the director of the salivary program at Stanford since 2013, Dr. Sirjani's practice is focused on minimally invasive parotidectomy.

He was the first surgeon at Stanford to offer patients sialendoscopy. His research interests include innovations in minimizing morbidity from parotid cancer treatment.

Dr. Sirjani's research interests focus on surgical simulation and surgical innovation. He invented the only parotidectomy surgical simulator in the country, which is funded by CIMIT and used to teach other surgeons about the tension placed on the facial nerve during Parotidectomy. Stanford is now a primary center for the treatment of salivary related cancers.

Dr. Sirjani incorporates new innovations, basic science research, and his high volume of operative experience to tailor operations to best suite the patient.

CLINICAL FOCUS

- Cancer > Head and Neck Cancer
- Parotid Neoplasms
- Salivary Gland Neoplasms
- Skull Base Neoplasms
- Surgical Flaps
- Sialoendoscopy
- Jaw
- Otolaryngology
- Neck Dissection
- Carcinoma, Skin Appendage

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Otolaryngology (Head and Neck Surgery)

ADMINISTRATIVE APPOINTMENTS

- Chief of Otolaryngology, VA Palo Alto, (2012- present)
- Director, Stanford Salivary Gland Program, (2013- present)

HONORS AND AWARDS

- Who's Who in America, Marquis Who's Who Publications Board (2017-2018)
- Faculty Teaching Award, Stanford Department of Otolaryngology (2017)
- Faculty Teaching Award, Stanford Department of Otolaryngology (2013)
- "Surgery at the End of Life", American College of Surgeons, Issues Committee of Resident and Associate Society (2012)
- "Reconstructive Dilemma of a Rare Mandibular Tumor", Saint Louis ENT Club (2006)
- Resident Award, Association for Research in Otolaryngology (2004)
- Michael Paparella Award for Outstanding Research, Washington University (2003)
- Young Investigator Award, Academy of Clinical Laboratory Physicians and Scientists (2000)
- Caldwell Research Award, University of Arizona College of Medicine (1999)
- Excellence in Teaching Histology, University of Arizona College of Medicine (1999)
- Dean's Scholar, University of Arizona College of Medicine (1996-2001)
- Centennial Achievement Award, University of Arizona (1996)
- Most Outstanding Senior Award in Biochemistry, University of Arizona (1996)
- Most Outstanding Senior Award in the College of Science, University of Arizona (1996)
- Silver Bowl Award (4.0 GPA excluding last semester), University of Arizona (1996)
- Phi Kappa Phi, University of Arizona (1992-96)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Medical Devices Committee for the American Academy of Otolaryngology (2018 - 2020)
- Active Candidate for Fellowship, Triological Society (2016 - present)
- Member, American Academy of Otolaryngology, Medical Devices and Drugs Committee (2013 - present)

- Member, North American Skull Base Society (2012 - present)
- Member, Association of Northern California Oncologist (2011 - present)
- Member, American Telemedicine Association (2011 - present)

PROFESSIONAL EDUCATION

- Residency: Washington University School Of Medicine Registrar (2008) MO
- Internship: Washington University School Of Medicine Registrar (2002) MO
- Medical Education: University of Arizona College of Medicine Office of the Registrar (2001) AZ
- Fellowship, Stanford Biodesign Faculty Fellowship , Innovation (2017)
- F.A.C.S, American College of Surgeons (2013)
- Board Certification: Otolaryngology, American Board of Otolaryngology (2010)
- Fellowship: University of Washington Medical Center (2009) WA
- Post-Sophomore Fellow, University of Arizona College of Medicine , Pathology (1999)
- Bachelor of Science, University of Arizona , Biochemistry (1996)

LINKS

- Salivary Gland Website: <https://med.stanford.edu/ohns/OHNS-healthcare/head-and-neck-surgery/programs/salivary-gland-program.html>
- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Innovation of devices to improve the quality of life of patients with advanced head and neck cancers, minimal invasive parotid surgery, surgical simulation, flap reconstruction of large head and neck defects to restore cosmesis and function (speech, swallowing), stem cell recovery of radiation induced salivary damage, and salivary gland cancer biology

CLINICAL TRIALS

- Cetuximab IRDye800 Study as an Optical Imaging Agent to Detect Cancer During Surgical Procedures, Not Recruiting
- Multispectral Imaging to Characterize Patterns of Vascular Supply Within Lymphoepithelial Mucosa in Oropharyngeal Cancer, Not Recruiting
- Panitumumab IRDye800 Optical Imaging Study, Not Recruiting

Publications

PUBLICATIONS

- **Aldehyde dehydrogenase 3A1 deficiency leads to mitochondrial dysfunction and impacts salivary gland stem cell phenotype.** *PNAS nexus*
Viswanathan, V., Cao, H., Saiki, J., Jiang, D., Mattingly, A., Nambiar, D., Bloomstein, J., Li, Y., Jiang, S., Chamoli, M., Sirjani, D., Kaplan, M., Holsinger, et al
2022; 1 (2): pgac056
- **Landscape of innate lymphoid cells in human head and neck cancer reveals divergent NK cell states in the tumor microenvironment.** *Proceedings of the National Academy of Sciences of the United States of America*
Moreno-Nieves, U. Y., Tay, J. K., Saumyaa, S., Horowitz, N. B., Shin, J. H., Mohammad, I. A., Luca, B., Mundy, D. C., Gulati, G. S., Bedi, N., Chang, S., Chen, C., Kaplan, et al
2021; 118 (28)
- **The Future of Telemedicine: Revolutionizing Health Care or Flash in the Pan?** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Losorelli, S. D., Vendra, V., Hildrew, D. M., Woodson, E. A., Brenner, M. J., Sirjani, D. B.
2021: 194599820983330

- **Tracheostomy During the COVID-19 Pandemic: Comparison of International Perioperative Care Protocols and Practices in 26 Countries.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Bier-Laning, C., Cramer, J. D., Roy, S., Palmieri, P. A., Amin, A., Anon, J. M., Bonilla-Asalde, C. A., Bradley, P. J., Chaturvedi, P., Cognetti, D. M., Dias, F., Di Stadio, A., Fagan, et al
2020: 194599820961985
- **Radiographic surveillance of abdominal free fat graft in complex parotid pleomorphic adenomas: A case series.** *Heliyon*
Lee, Y. J., Fischbein, N. J., Megwalu, U. n., Baik, F. M., Divi, V. n., Kaplan, M. J., Sirjani, D. B.
2020; 6 (5): e03894
- **Risks of Neoplasia and Malignancy in Surgically Resected Cystic Parotid Lesions.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Boursiquot, B. C., Fischbein, N. J., Sirjani, D., Megwalu, U. C.
2019: 194599819889699
- **Regionalization of head and neck cancer surgery may fragment care and impact overall survival** *LARYNGOSCOPE*
Chen, M. M., Megwalu, U. C., Liew, J., Sirjani, D., Rosenthal, E. L., Divi, V.
2019; 129 (6): 1413–19
- **Retrograde parotidectomy under local anesthesia for benign, malignant, and inflammatory lesions.** *American journal of otolaryngology*
Chang, M., Coughran, A., Lee, Y., Collins, J., Sirjani, D.
2019
- **Saliva: an all-rounder of our body.** *European journal of pharmaceutics and biopharmaceutics : official journal of Arbeitsgemeinschaft fur Pharmazeutische Verfahrenstechnik e.V*
Roblegg, E. n., Coughran, A. n., Sirjani, D. n.
2019
- **Utility of videolaryngoscopy for diagnostic and therapeutic interventions in head and neck surgery.** *American journal of otolaryngology*
Shenson, J. A., Marcott, S. n., Dewan, K. n., Lee, Y. J., Mariano, E. R., Sirjani, D. B.
2019: 102284
- **Regionalization of Head and Neck Cancer Surgery May Fragment Care and Impact Overall Survival.** *The Laryngoscope*
Chen, M. M., Megwalu, U. C., Liew, J., Sirjani, D., Rosenthal, E. L., Divi, V.
2018
- **Association of Time between Surgery and Adjuvant Therapy with Survival in Oral Cavity Cancer.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Chen, M. M., Harris, J. P., Orosco, R. K., Sirjani, D., Hara, W., Divi, V.
2018; 158 (6): 1051–56
- **Aldehyde dehydrogenase 3A1 activation prevents radiation-induced xerostomia by protecting salivary stem cells from toxic aldehydes.** *Proceedings of the National Academy of Sciences of the United States of America*
Saiki, J. P., Cao, H., Van Wassenhove, L. D., Viswanathan, V., Bloomstein, J., Nambiar, D. K., Mattingly, A. J., Jiang, D., Chen, C., Stevens, M. C., Simmons, A. L., Park, H. S., von Eyben, et al
2018
- **Association of Survival With Shorter Time to Radiation Therapy After Surgery for US Patients With Head and Neck Cancer** *JAMA OTOLARYNGOLOGY-HEAD & NECK SURGERY*
Harris, J. P., Chen, M. M., Orosco, R. K., Sirjani, D., Divi, V., Hara, W.
2018; 144 (4): 349–59
- **Jaw Opening Decreases Window to the Deep Parotid Lobe.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Lee, Y., Megwalu, U., Melara, E., Divi, V., Fernandes, V. T., Sirjani, D.
2018: 194599818766317
- **Outcomes in Head and Neck Resections That Require Multiple-Flap Reconstructions: A Systematic Review.** *JAMA otolaryngology-- head & neck surgery*
Gao, R. W., Nuyen, B. A., Divi, V. n., Sirjani, D. n., Rosenthal, E. L.
2018

- **Oropharyngeal squamous cell carcinoma incidence and mortality trends in the United States, 1973-2013.** *The Laryngoscope*
Megwalu, U. C., Sirjani, D., Devine, E. E.
2017
- **Retrograde Parotidectomy and facial nerve outcomes: A case series of 44 patients** *AMERICAN JOURNAL OF OTOLARYNGOLOGY*
Kligerman, M. P., Song, Y., Schoppy, D., Divi, V., Megwalu, U. C., Haughey, B. H., Sirjani, D.
2017; 38 (5): 533–36
- **Node-positive cutaneous squamous cell carcinoma of the head and neck: Survival, high-risk features, and adjuvant chemoradiotherapy outcomes.** *Head & neck*
Amoils, M., Lee, C. S., Sunwoo, J., Aasi, S. Z., Hara, W., Kim, J., Sirjani, D., Colevas, A. D., Chang, A. L., Divi, V.
2017
- **Risk of Nodal Metastasis in Major Salivary Gland Adenoid Cystic Carcinoma.** *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*
Megwalu, U. C., Sirjani, D.
2017: 194599817690138-?
- **Association of Postoperative Radiotherapy With Survival in Patients With N1 Oral Cavity and Oropharyngeal Squamous Cell Carcinoma** *JAMA OTOLARYNGOLOGY-HEAD & NECK SURGERY*
Chen, M. M., Harris, J. P., Hara, W., Sirjani, D., Divi, V.
2016; 142 (12): 1224-1230
- **Lymph Node Count From Neck Dissection Predicts Mortality in Head and Neck Cancer** *JOURNAL OF CLINICAL ONCOLOGY*
Divi, V., Chen, M. M., Nussenbaum, B., Rhoads, K. F., Sirjani, D. B., Holsinger, F. C., Shah, J. L., Hara, W.
2016; 34 (32): 3892-?
- **Contemporary mandibular reconstruction.** *Current opinion in otolaryngology & head and neck surgery*
Divi, V., Schoppy, D. W., Williams, R. A., Sirjani, D. B.
2016; 24 (5): 433-439
- **Faster Triage of Veterans With Head and Neck Cancer.** *Federal practitioner : for the health care professionals of the VA, DoD, and PHS*
Kligerman, M., Asaly, A., Kwan, M., Kaplan, M., Fee, W. E., Yuan, A., Benedam-Lenrow, E., Song, Y., Pham, R., Sirjani, D.
2016; 33 (Suppl 5): 24S–29S
- **Ameloblastoma: a clinical review and trends in management** *EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY*
McClary, A. C., West, R. B., McClary, A. C., Pollack, J. R., Fischbein, N. J., Holsinger, C. F., Sunwoo, J., Colevas, A. D., Sirjani, D.
2016; 273 (7): 1649-1661
- **Consultation via telemedicine and access to operative care for patients with head and neck cancer in a Veterans Health Administration population** *HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK*
Beswick, D. M., Vashi, A., Song, Y., Pham, R., Holsinger, F. C., Rayl, J. D., Walker, B., Chardos, J., Yuan, A., Benadam-Lenrow, E., Davis, D., Sung, C. K., Divi, et al
2016; 38 (6): 925-929
- **Oral Squamous Cell Carcinoma Mimicking Peri-Implantitis** *CLINICAL ADVANCES IN PERIODONTICS*
Chainani-Wu, N., Chang, C., Sim, C., Wu, T. C., Cox, D., Sirjani, D., Silverman, S.
2016; 6 (2): 83–88
- **Oral Squamous Cell Carcinoma Mimicking Peri-Implantitis.** *Clinical advances in periodontics*
Chainani-Wu, N., Chang, C., Sim, C., Wu, T. C., Cox, D., Sirjani, D., Silverman, S.
2016; 6 (2): 83-88
- **Botulinum Toxin Confers Radioprotection in Murine Salivary Glands** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Zeidan, Y. H., Xiao, N., Cao, H., Kong, C., Le, Q., Sirjani, D.
2016; 94 (5): 1190-1197
- **Anterolateral approach to the upper cervical spine: Case report and operative technique** *HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK*
Song, Y., Tharin, S., Divi, V., Prolo, L. M., Sirjani, D. B.

2015; 37 (9): E115-E119

- **CD271 is a functional and targetable marker of tumor-initiating cells in head and neck squamous cell carcinoma.** *Oncotarget*
Murillo-Sauca, O., Chung, M. K., Shin, J. H., Karamboulas, C., Kwok, S., Jung, Y. H., Oakley, R., Tysome, J. R., Farnebo, L. O., Kaplan, M. J., Sirjani, D., Divi, V., Holsinger, et al
2014; 5 (16): 6854-6866

- **Neurotrophic factor GDNF promotes survival of salivary stem cells.** *journal of clinical investigation*
Xiao, N., Lin, Y., Cao, H., Sirjani, D., Giaccia, A. J., Koong, A. C., Kong, C. S., Diehn, M., Le, Q.
2014; 124 (8): 3364-3377

- **A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth.** *Clinical cancer research*
Xiao, N., Cao, H., Chen, C., Kong, C. S., Ali, R., Chan, C., Sirjani, D., Graves, E., Koong, A., Giaccia, A., Mochly-Rosen, D., Le, Q.
2013; 19 (16): 4455-4464

- **Cost-effectiveness landscape analysis of treatments addressing xerostomia in patients receiving head and neck radiation therapy.** *Oral surgery, oral medicine, oral pathology and oral radiology*
Sasportas, L. S., Hosford, D. N., Sodini, M. A., Waters, D. J., Zambricki, E. A., Barral, J. K., Graves, E. E., Brinton, T. J., Yock, P. G., Le, Q., Sirjani, D.
2013; 116 (1): e37-51

- **Impact of positron emission tomography/computed tomography surveillance at 12 and 24 months for detecting head and neck cancer recurrence** *CANCER*
Ho, A. S., Tsao, G. J., Chen, F. W., Shen, T., Kaplan, M. J., Colevas, A. D., Fischbein, N. J., Quon, A., Quynh-Thu Le, Q. T., Pinto, H. A., Fee, W. E., Sunwoo, J. B., Sirjani, et al
2013; 119 (7): 1349-1356

- **A Novel Aldehyde Dehydrogenase-3 Activator Leads to Adult Salivary Stem Cell Enrichment In Vivo** *CLINICAL CANCER RESEARCH*
Banh, A., Xiao, N., Cao, H., Chen, C., Kuo, P., Krakow, T., Bavan, B., Khong, B., Yao, M., Ha, C., Kaplan, M. J., Sirjani, D., Jensen, et al
2011; 17 (23): 7265-7272

- **Lefort I Osteotomy access to the Anterior Skull Base** *Operative Techniques in Otolaryngology*
Sirjani DB, Futran N.
2010; 21 (1): 22-25