

Stanford



John B. Sunwoo

Associate Professor of Otolaryngology - Head and Neck Surgery
Otolaryngology - Head & Neck Surgery Divisions

CLINICAL OFFICES

- **Stanford Cancer Center**

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

Dr. Sunwoo was born and raised in St. Louis, Missouri. He received his undergraduate degree from Brown University in Providence, Rhode Island and his medical degree from Washington University in St. Louis, Missouri. He completed his training in Otolaryngology – Head and Neck Surgery at Washington University. Dr. Sunwoo has been at Stanford University since 2008, and his clinical focus is on the surgical management of head and neck cancer, specifically focusing on melanoma and neoplasms of the thyroid and parathyroid glands. He is a member of the Pigmented Lesions and Melanoma Clinic and the Melanoma Working Group at Stanford. He is also the co-founder of the Stanford Thyroid and Parathyroid Tumor Board.

In addition to his clinical work, Dr. Sunwoo is the Director of Head and Neck Cancer Research at Stanford University and the principal investigator of an NIH-funded laboratory in the Stanford Cancer Institute. His research is focused on three primary areas: (1) the immune response to cancer, particularly a tumorigenic population of cells within malignancies called cancer stem cells; (2) the biology and developmental programs of a special lymphocyte population involved in innate immunity called natural killer (NK) cells; and (3) intra-tumor and inter-tumor heterogeneity in head and neck cancer.

CLINICAL FOCUS

- Cancer > Cutaneous (Dermatologic) Oncology
- Cancer > Head and Neck Cancer
- Melanoma
- Thyroid Neoplasms
- Parathyroid Neoplasms
- Tongue Neoplasms
- Otolaryngology - Head & Neck Surgery (Ear, Nose and Throat)
- Otolaryngology
- Thyroid Nodule
- Parotid Neoplasms
- Cancer of the Salivary Gland

ACADEMIC APPOINTMENTS

- Associate Professor, Otolaryngology - Head & Neck Surgery Divisions
- Member, Bio-X
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Member, Tumor Biology & Imaging Task Force, Head and Neck Steering Committee of the National Cancer Institute, NIH, (2010-2011)
- Member, CORE Grants Study Section, American Academy of Otolaryngology # Head and Neck Surgery, (2009- present)
- Member, Research Committee, American Head and Neck Society, (2010-2013)
- Member, Metastatic and Recurrent Head and Neck Disease Task Force, Head and Neck Steering Committee of the National Cancer Institute, NIH, (2011- present)
- Member, Pigmented Lesion and Melanoma Program, Stanford University School of Medicine, (2011- present)
- Co-Director, Thyroid and Parathyroid Tumor Board, Stanford University School of Medicine, (2011- present)
- Director of Head and Neck Cancer Research, Stanford University School of Medicine, Dept. of Otolaryngology, (2013- present)

HONORS AND AWARDS

- Sigma Xi, Brown University (1989)
- Louis and Dorothy Kovitz Prize in Surgery, Washington University (1993)
- Resident Research Award, Washington University (1997, 1999, 2000)
- Young Investigator Award, American Head and Neck Society (2000)
- Alpha Omega Alpha, Washington University (2003)
- Chief Resident Teaching Award, Washington University (2003)
- K08 Award, National Institutes of Health (2004)
- Faculty Teacher of the Year, Dept. of Otolaryngology, Stanford University (2012)
- Top Doctors, Castle Connolly (2013 - present)
- Best Doctors in America, Best Doctors, Inc. (2009-present)

PROFESSIONAL EDUCATION

- Postdoc Research Fellowship, Washington University , Immunology (2008)
- Residency: Washington University School Of Medicine (2003) MO
- Medical Education: Washington University School Of Medicine (1993) MO
- Board Certification: Otolaryngology, American Board of Otolaryngology (2004)
- Fellowship: National Institutes of Health (2000) MD
- M.D., Washington University , Medicine (1993)
- Sc.B., Brown University , Biochemistry (1989)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My laboratory is focused on two primary areas of research: (1) the immune response to head and neck cancer and to a tumorigenic population of cells within these malignancies called cancer stem cells; (2) the developmental programs of a special lymphocyte population involved in innate immunity called natural killer (NK) cells; and (3) intra-tumor and inter-tumor heterogeneity.

The overarching goal of my laboratory is to understand how NK cells, in the broader context of the host immune system, protect against developing and metastasizing tumor cells, especially a rare population of tumor-initiating cells called cancer stem cells. These tumorigenic cells have been isolated from a number of solid tumor malignancies, including human head and neck cancer. Heterogeneity of immune potency between individuals with these malignancies is well accepted but poorly understood. The work in my laboratory will address the questions of how and why the immune system can respond to and control malignant cells in some contexts

but not in others. Clarity of the underlying basis for these differences would potentially explain why certain individuals are more susceptible to cancer, lead to better screening strategies, and ultimately provide much needed insight into how the host immune system can be manipulated to control cancer.

CLINICAL TRIALS

- Identification and Characterization of Novel Proteins and Genes in Head and Neck Cancer, Recruiting
- Identification of Secreted Markers for Tumor Hypoxia in Patients With Head and Neck or Lung Cancers, Recruiting
- Multispectral Imaging to Characterize Patterns of Vascular Supply Within Lymphoepithelial Mucosa in Oropharyngeal Cancer, Recruiting
- Imaging and Biomarkers of Hypoxia in Solid Tumors, Not Recruiting
- Talactoferrin in Treating Patients With Relapsed or Refractory Non-Small Cell Lung Cancer or Squamous Cell Head and Neck Cancer, Not Recruiting

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Uriel Moreno Nieves, Saumyaa Saumyaa

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Immunology (Phd Program)

Publications

PUBLICATIONS

- **The aryl hydrocarbon receptor is required for the maintenance of liver-resident natural killer cells.** *journal of experimental medicine*
Zhang, L. H., Shin, J. H., Haggadone, M. D., Sunwoo, J. B.
2016; 213 (11): 2249-2257
- **CD44+ Cells in Head and Neck Squamous Cell Carcinoma Suppress T-Cell-Mediated Immunity by Selective Constitutive and Inducible Expression of PD-L1.** *Clinical cancer research*
Lee, Y., Shin, J. H., Longmire, M., Wang, H., Kohrt, H. E., Chang, H. Y., Sunwoo, J. B.
2016; 22 (14): 3571-3581
- **Modulation of natural killer cell antitumor activity by the aryl hydrocarbon receptor** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Shin, J. H., Zhang, L., Murillo-Sauca, O., Kim, J., Kohrt, H. E., Bui, J. D., Sunwoo, J. B.
2013; 110 (30): 12391-12396
- **Targeting aldehyde dehydrogenase activity in head and neck squamous cell carcinoma with a novel small molecule inhibitor.** *Oncotarget*
Kim, J., Ho Shin, J., Chen, C. H., Cruz, L., Farnebo, L., Yang, J., Borges, P., Kang, G., Mochly-Rosen, D., Sunwoo, J. B.
2017
- **Identification of an atypical etiological head and neck squamous carcinoma subtype featuring the CpG island methylator phenotype.** *EBioMedicine*
Brennan, K., Koenig, J. L., Gentles, A. J., Sunwoo, J. B., Gevaert, O.
2017; 17: 223–36
- **Characterizing CD137 Upregulation on NK cells in Patients Receiving Monoclonal Antibody Therapy.** *Annals of oncology*
MAKKOUK, A., Sundaram, V., Chester, C., Chang, S., Colevas, A. D., Sunwoo, J. B., Maecker, H., Desai, M., Kohrt, H. E.
2016
- **Loss of Expression of AZGP1 Is Associated With Worse Clinical Outcomes in a Multi-Institutional Radical Prostatectomy Cohort.** *Prostate*
Brooks, J. D., Wei, W., Pollack, J. R., West, R. B., Shin, J. H., Sunwoo, J. B., Hawley, S. J., Auman, H., Newcomb, L. F., Simko, J., Hurtado-Coll, A., Troyer, D. A., Carroll, et al
2016; 76 (15): 1409-1419

- **Flexible radioluminescence imaging for FDG-guided surgery** *MEDICAL PHYSICS*
King, M. T., Jenkins, C. H., Sun, C., Carpenter, C. M., Ma, X., Cheng, K., Quynh-Thu Le, Q. T., Sunwoo, J. B., Cheng, Z., Prax, G., Xing, L.
2016; 43 (10)
- **Transcription factor Dlx3 induces aryl hydrocarbon receptor promoter activity.** *Biochemistry and biophysics reports*
Shin, J. H., Haggadone, M. D., Sunwoo, J. B.
2016; 7: 353-360
- **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
- **Aberrant lymphatic drainage and risk for melanoma recurrence after negative sentinel node biopsy in middle-aged and older men** *HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK*
Kaveh, A. H., Seminara, N. M., Barnes, M. A., Berger, A. J., Chen, F. W., Yao, M., Johnson, D., Parsa, S., Quon, A., Swetter, S. M., Sunwoo, J. B.
2016; 38: E754-E760
- **Head and neck cancer immunology and immunotherapeutics: Basic concepts to clinical translational approaches.** *Oral oncology*
Uppaluri, R., Bell, R. B., Sunwoo, J. B.
2016; 58: 49-51
- **Development of prognostic signatures for intermediate-risk papillary thyroid cancer.** *BMC cancer*
Brennan, K., Holsinger, C., Dosiou, C., Sunwoo, J. B., Akatsu, H., Haile, R., Gevaert, O.
2016; 16 (1): 736-?
- **ESM1 Mediates NGFR-Induced Invasion and Metastasis in Murine Oral Squamous Cell Carcinoma** *Oncotarget*
Chen, C., Shin, J. H., Eggold, J. T., Chung, M. K., Zhang, L. H., Lee, J., Sunwoo, J. B.
2016; In Press
- **Tumor Ulceration Does Not Fully Explain Sex Disparities in Melanoma Survival among Adolescents and Young Adults.** *journal of investigative dermatology*
Keegan, T. H., Swetter, S. M., Tao, L., Sunwoo, J. B., Clarke, C. A.
2015; 135 (12): 3195-3197
- **A prospective study of electronic quality of life assessment using tablet devices during and after treatment of head and neck cancers.** *Oral oncology*
Pollom, E. L., Wang, E., Bui, T. T., Ognibene, G., von Eyben, R., Divi, V., Sunwoo, J., Kaplan, M., Dimitri Colevas, A., Le, Q., Hara, W. Y.
2015; 51 (12): 1132-1137
- **Immunotherapy for Head and Neck Squamous Cell Carcinoma.** *Hematology/oncology clinics of North America*
Schoppy, D. W., Sunwoo, J. B.
2015; 29 (6): 1033-1043
- **β -Radioluminescence Imaging: A Comparative Evaluation with Cerenkov Luminescence Imaging.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
King, M. T., Carpenter, C. M., Sun, C., Ma, X., Le, Q., Sunwoo, J. B., Cheng, Z., Prax, G., Xing, L.
2015; 56 (9): 1458-1464
- **Targeting Toll-like receptor 2 inhibits growth of head and neck squamous cell carcinoma.** *Oncotarget*
Farnebo, L., Shahangian, A., Lee, Y., Shin, J. H., Scheeren, F. A., Sunwoo, J. B.
2015; 6 (12): 9897-9907
- **Regulation of ribosomal RNA synthesis in T cells: requirement for GTP and Ebp1.** *Blood*
Nguyen, L. X., Lee, Y., Urbani, L., Utz, P. J., Hamburger, A. W., Sunwoo, J. B., Mitchell, B. S.
2015; 125 (16): 2519-2529
- **CCR 20th anniversary commentary: Preclinical study of proteasome inhibitor bortezomib in head and neck cancer.** *Clinical cancer research*
Allen, C. T., Conley, B., Sunwoo, J. B., Van Waes, C.
2015; 21 (5): 942-943
- **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
- **Targeting CD137 enhances the efficacy of cetuximab.** *journal of clinical investigation*
Kohrt, H. E., Colevas, A. D., Houot, R., Weiskopf, K., Goldstein, M. J., Lund, P., Mueller, A., Sagiv-Barfi, I., Marabelle, A., Lira, R., Troutner, E., Richards, L., Rajapaska, et al
2014; 124 (6): 2668-2682
 - **Epstein-Barr Virus Nuclear Antigen 1 (EBNA1) Protein Induction of Epithelial-Mesenchymal Transition in Nasopharyngeal Carcinoma Cells** *CANCER*
Wang, L., Tian, W., Xu, X., Nie, B., Lu, J., Liu, X., Zhang, B., Dong, Q., Sunwoo, J. B., Li, G., Li, X.
2014; 120 (3): 363-372
 - **Cancer immunosurveillance and immunoediting by natural killer cells.** *Cancer journal*
Gross, E., Sunwoo, J. B., Bui, J. D.
2013; 19 (6): 483-489
 - **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., Le, Q., Pinto, H. A., Fee, W. E., Sunwoo, J. B., Sirjani, et al
2013; 119 (7): 1349-1356
 - **Epigenetically mediated pathogenic effects of phenanthrene on regulatory T cells.** *Journal of toxicology*
Liu, J., Zhang, L., Winterroth, L. C., Garcia, M., Weiman, S., Wong, J. W., Sunwoo, J. B., Nadeau, K. C.
2013; 2013: 967029-?
 - **Identification of human NK cells that are deficient for signaling adaptor FcR gamma and specialized for antibody-dependent immune functions** *INTERNATIONAL IMMUNOLOGY*
Hwang, I., Zhang, T., Scott, J. M., Kim, A. R., Lee, T., Kakarla, T., Kim, A., Sunwoo, J. B., Kim, S.
2012; 24 (12): 793-802
 - **CD44+cells have cancer stem cell-like properties in nasopharyngeal carcinoma** *INTERNATIONAL FORUM OF ALLERGY & RHINOLOGY*
Janisiewicz, A. M., Shin, J. H., Murillo-Sauca, O., Kwok, S., Quynh-Thu Le, Q. T., Kong, C., Kaplan, M. J., Sunwoo, J. B.
2012; 2 (6): 465-470
 - **The manipulation of natural killer cells to target tumor sites using magnetic nanoparticles** *BIOMATERIALS*
Jang, E., Shin, J., Ren, G., Park, M., Cheng, K., Chen, X., Wu, J. C., Sunwoo, J. B., Cheng, Z.
2012; 33 (22): 5584-5592
 - **Effect of stimulation of natural killer cells with an anti-CD137 mAb on the efficacy of trastuzumab, cetuximab, and rituximab** *48th Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO)*
Kohrt, H. E., Houot, R., Weiskopf, K., Goldstein, M., Lund, P., Scheeren, F., Czerwinski, D., Colevas, A. D., Weng, W., Clarke, M. F., Carlson, R. W., Sunwoo, J., Tedder, et al
AMER SOC CLINICAL ONCOLOGY.2012
 - **The CD47-signal regulatory protein alpha (SIRPa) interaction is a therapeutic target for human solid tumors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Willingham, S. B., Volkmer, J., Gentles, A. J., Sahoo, D., Dalerba, P., Mitra, S. S., Wang, J., Contreras-Trujillo, H., Martin, R., Cohen, J. D., Lovelace, P., Scheeren, F. A., Chao, et al
2012; 109 (17): 6662-6667
 - **Targeted endoscopic salvage nasopharyngectomy for recurrent nasopharyngeal carcinoma** *INTERNATIONAL FORUM OF ALLERGY & RHINOLOGY*
Ho, A. S., Kaplan, M. J., Fee, W. E., Yao, M., Sunwoo, J. B., Hwang, P. H.
2012; 2 (2): 166-173
 - **ERK1/2 Regulation of CD44 Modulates Oral Cancer Aggressiveness** *CANCER RESEARCH*
Judd, N. P., Winkler, A. E., Murillo-Sauca, O., Brotman, J. J., Law, J. H., Lewis, J. S., Dunn, G. P., Bui, J. D., Sunwoo, J. B., Uppaluri, R.
2012; 72 (1): 365-374
 - **A cisplatin-resistant subpopulation of mesenchymal-like cells in head and neck squamous cell carcinoma** *CELL CYCLE*
Sunwoo, J. B.
2011; 10 (17): 2834-2835

- **Distal-less homeobox transcription factors regulate development and maturation of natural killer cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Sunwoo, J. B., Kim, S., Yang, L., Naik, T., Higuchi, D. A., Rubenstein, J. L., Yokoyama, W. M.
2008; 105 (31): 10877-10882
- **Temporal Relationship Between Antitumor Necrosis Factor-alpha Antibody Therapy and Recrudescence of Head and Neck Squamous Cell Carcinoma** *LARYNGOSCOPE*
Engel, S. H., Hullar, T. E., Adkins, D. R., Thorstad, W. L., Sunwoo, J. B.
2008; 118 (3): 450-452
- **HLA alleles determine differences in human natural killer cell responsiveness and potency** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Kim, S., Sunwoo, J. B., Yang, L., Choi, T., Song, Y., French, A. R., Vlahiotis, A., Piccirillo, J. F., Cella, M., Colonna, M., Mohanakumar, T., Hsu, K. C., Dupont, et al
2008; 105 (8): 3053-3058
- **Spontaneous regression of cutaneous head and neck melanoma: Implications for the immunologic control of neoplasia** *HEAD AND NECK-JOURNAL FOR THE SCIENCES AND SPECIALTIES OF THE HEAD AND NECK*
Dunn, G. P., Lewis, J. S., Sunwoo, J. B., Uppaluri, R.
2008; 30 (2): 267-272
- **Mycotic pseudoaneurysm of the internal maxillary artery - Case report and review of the literature** *ARCHIVES OF OTOLARYNGOLOGY-HEAD & NECK SURGERY*
Dunn, G. P., Uppaluri, R., Hessler, J. L., Layland, M. K., Derdeyn, C. P., Sunwoo, J. B.
2007; 133 (4): 402-406
- **Arrested natural killer cell development associated with transgene insertion into the Atf2 locus** *BLOOD*
Kim, S., Song, Y. J., Higuchi, D. A., Kang, H. P., Pratt, J. R., Yang, L. P., Hong, C. M., Poursine-Laurent, J., Iizuka, K., French, A. R., Sunwoo, J. B., Ishii, S., Reimold, et al
2006; 107 (3): 1024-1030
- **Inhibition of nuclear factor-kappa B and target genes during combined therapy with proteasome inhibitor bortezomib and reirradiation in patients with recurrent head-and-neck squamous cell carcinoma** *INTERNATIONAL JOURNAL OF RADIATION ONCOLOGY BIOLOGY PHYSICS*
Van Waes, C., Chang, A. A., Lebowitz, P. F., Druzgal, C. H., Chen, Z., Elsayed, Y. A., Sunwoo, J. B., Rudy, S. F., Morris, J. C., Mitchell, J. B., Camphausen, K., Gius, D., Adams, et al
2005; 63 (5): 1400-1412
- **Licensing of natural killer cells by host major histocompatibility complex class I molecules** *NATURE*
Kim, S., Poursine-Laurent, J., Truscott, S. M., Lybarger, L., Song, Y. J., Yang, L. P., French, A. R., Sunwoo, J. B., Lemieux, S., Hansen, T. H., Yokoyama, W. M.
2005; 436 (7051): 709-713
- **Nuclear factor-kappa B is an important modulator of the altered gene expression profile and malignant phenotype in squamous cell carcinoma** *CANCER RESEARCH*
Loercher, A., Lee, T. L., Ricker, J. L., Howard, A., Geoghegan, J., Chen, Z., Sunwoo, J. B., Sitcheran, R., Chuang, E. Y., Mitchell, J. B., Baldwin, A. S., Van Waes, C.
2004; 64 (18): 6511-6523
- **Effects of pharmacologic antagonists of epidermal growth factor receptor, PI3K and MEK signal kinases on NF-kappa B and AP-1 activation and IL-8 and VEGF expression in human head and neck squamous cell carcinoma lines** *INTERNATIONAL JOURNAL OF CANCER*
Bancroft, C. C., Chen, Z., Yeh, J., Sunwoo, J. B., Yeh, N. T., Jackson, S., Jackson, C., Van Waes, C.
2002; 99 (4): 538-548
- **Transcript map of the 8p23 putative tumor suppressor region** *GENOMICS*
Sun, P. C., Uppaluri, R., Schmidt, A. P., Pashia, M. E., Quant, E. C., Sunwoo, J. B., Gollin, S. M., Scholnick, S. B.
2001; 75 (1-3): 17-25
- **IL (interleukin)-1 alpha promotes nuclear factor-kappa B and AP-1-induced IL-8 expression, cell survival, and proliferation in head and neck squamous cell carcinomas** *CLINICAL CANCER RESEARCH*
Wolf, J. S., Chen, Z., Dong, G., Sunwoo, J. B., Bancroft, C. C., Capo, D. E., Yeh, N. T., Mukaida, N., Van Waes, C.
2001; 7 (6): 1812-1820

- **Novel proteasome inhibitor PS-341 inhibits activation of nuclear factor-kappa B, cell survival, tumor growth, and angiogenesis in squamous cell carcinoma** *CLINICAL CANCER RESEARCH*
Sunwoo, J. B., Chen, Z., Dong, G., Yeh, N., Bancroft, C. G., Sausville, E., Adams, J., Elliott, P., Van Waes, C.
2001; 7 (5): 1419-1428
- **Coexpression of proangiogenic factors IL-8 and VEGF by human head and neck squamous cell carcinoma involves coactivation by MEK-MAPK and IKK-NF-kappa B signal pathways** *CLINICAL CANCER RESEARCH*
Bancroft, C. C., Chen, Z., Dong, G., Sunwoo, J. B., Yeh, N., PARK, C., Van Waes, C.
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- **Concurrent paclitaxel and radiation in the treatment of locally advanced head and neck cancer** *JOURNAL OF CLINICAL ONCOLOGY*
Sunwoo, J. B., Herscher, L. L., Kroog, G. S., Thomas, G. R., Ondrey, F. G., Duffey, D. C., Solomon, B. I., Boss, C., Albert, P. S., McCullugh, L., Rudy, S., Muir, C., Zhai, et al
2001; 19 (3): 800-811
- **Homozygous deletions define a region of 8p23.2 containing a putative tumor suppressor gene** *GENOMICS*
Sun, P. C., Schmidt, A. P., Pashia, M. E., Sunwoo, J. B., Scholnick, S. B.
1999; 62 (2): 184-188
- **Multiple regions of deletion on chromosome arm 13q in head-and-neck squamous-cell carcinoma** *INTERNATIONAL JOURNAL OF CANCER*
Gupta, V. K., Schmidt, A. P., Pashia, M. E., Sunwoo, J. B., Scholnick, S. B.
1999; 84 (5): 453-457
- **Constitutive activation of transcription factors NF-kappa B, AP-1, and NF-IL6 in human head and neck squamous cell carcinoma cell lines that express pro-inflammatory and pro-angiogenic cytokines** *MOLECULAR CARCINOGENESIS*
Ondrey, F. G., Dong, G., Sunwoo, J., Chen, Z., Wolf, J. S., Crowl-Bancroft, C. V., Mukaida, N., Van Waes, C.
1999; 26 (2): 119-129
- **Localization of a putative tumor suppressor gene in the sub-telomeric region of chromosome 8p** *ONCOGENE*
Sunwoo, J. B., Sun, P. C., Gupta, V. K., Schmidt, A. P., El-Mofty, S., Scholnick, S. B.
1999; 18 (16): 2651-2655
- **Clinical correlations with allelotype in supraglottic squamous cancer** *OTOLARYNGOLOGY-HEAD AND NECK SURGERY*
Scholnick, S. B., El-Mofty, S. K., Shaw, M. E., Sunwoo, J. B., Haughey, B. H., Sun, P. C., Piccirillo, J. F., Zequeira, M. R.
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- **Chromosome 8 allelic loss and the outcome of patients with squamous cell carcinoma of the supraglottic larynx** *JOURNAL OF THE NATIONAL CANCER INSTITUTE*
Scholnick, S. B., Haughey, B. H., Sunwoo, J. B., ELMOFTY, S. K., Baty, J. D., Piccirillo, J. F., Zequeira, M. R.
1996; 88 (22): 1676-1682
- **Evidence for multiple tumor suppressor genes on chromosome arm 8p in supraglottic laryngeal cancer** *GENES CHROMOSOMES & CANCER*
Sunwoo, J. B., Holt, M. S., Radford, D. M., Deeker, C., Scholnick, S. B.
1996; 16 (3): 164-169
- **CELL-CYCLE OSCILLATION OF PHOSPHATASE INHIBITOR-2 IN RAT FIBROBLASTS COINCIDENT WITH P34CDC2 RESTRICTION** *NATURE*
Brautigan, D. L., Sunwoo, J., Labbe, J. C., Fernandez, A., Lamb, N. J.
1990; 344 (6261): 74-78