

## Rhinology resources on the internet\*

Dimitrios G. Balatsouras<sup>1</sup>, Antonis C. Kaberos<sup>1</sup>, Anastasios Leontiadis<sup>1</sup>,  
Stavros G. Korres<sup>2</sup>, Eleftherios Ferekidis<sup>2</sup>, Constantinos Economou<sup>1</sup>

<sup>1</sup> ENT Department of Tzaniou General Hospital, Piraeus, Greece

<sup>2</sup> ENT Department of Athens National University, Ippokraton Hospital, Athens, Greece

### SUMMARY

*During recent years medical information through Internet is increasingly available to both patients and professionals and ever more biomedical resources become available on line to assist in clinical medicine, education and research. The purpose of this article is to present a detailed list of all the worldwide web sites of rhinology that are accessible through the Internet.*

*Key words: computer communication networks, internet, rhinology, otolaryngology*

### INTRODUCTION

During recent years, the Internet has expanded from a tool of the scientific community and computer experts to the most promoted and universally growing technology (Glowniak, 1995; Pallen, 1995). The usefulness in the field of medicine is obvious, since general practitioners and specialists may communicate with experts from various countries and get informa-

tion about diagnostic and therapeutic issues (Kuppersmith et al., 1996; Kuppersmith et al., 1997; Burgess et al., 1999).

The Internet has always provided useful resources to otolaryngologists and specifically to rhinologists, but in recent years the

*Footnote:* The links published in this article can be found at: [www.rhinologyjournal.com/links](http://www.rhinologyjournal.com/links)

Table 1. Endoscopy - Operative techniques.

Anatomy as Related to Rhinoplasty	<a href="http://www3.utsouthwestern.edu/cme/endurmat/rohrich/s9612ind.htm">http://www3.utsouthwestern.edu/cme/endurmat/rohrich/s9612ind.htm</a>
Baylor College of Medicine Otolaryngology Grand Rounds Archive: Plastic and Reconstructive Surgery	<a href="http://www.bcm.tmc.edu/oto/grand/fprs.html">http://www.bcm.tmc.edu/oto/grand/fprs.html</a>
Baylor College of Medicine Otolaryngology Grand Rounds Archive: Rhinology	<a href="http://www.bcm.tmc.edu/oto/grand/rhino.html">http://www.bcm.tmc.edu/oto/grand/rhino.html</a>
Computer Aided Surgery	<a href="http://homepage2.nifty.com/cas/">http://homepage2.nifty.com/cas/</a>
Cosmetic Surgery Online	<a href="http://www.cosmeticsurgeryonline.com/">http://www.cosmeticsurgeryonline.com/</a>
Endoscopic Laser-Assisted Sinus Surgery	<a href="http://toffelcenter.com/index.html">http://toffelcenter.com/index.html</a>
Functional Endoscopic Sinus Surgery Tutorial	<a href="http://www.otohns.net/library/ess.asp">http://www.otohns.net/library/ess.asp</a>
Nasal Endoscopic Surgery	<a href="http://www.ient.or.jp/">http://www.ient.or.jp/</a>
Procedures - American Academy of Facial Plastic and Reconstructive Surgery	<a href="http://www.facial-plastic-surgery.org/patient/procedures/procedures.html">http://www.facial-plastic-surgery.org/patient/procedures/procedures.html</a>
Rhinoplasty tutorial	<a href="http://www.facialsurgery.com/PRELIM.HTM">http://www.facialsurgery.com/PRELIM.HTM</a>
University of Colorado-Facial Plastic Surgery and Rhinoplasty Case of the Month	<a href="http://www.uchsc.edu/sm/pmb/medround/ENTrounds/">http://www.uchsc.edu/sm/pmb/medround/ENTrounds/</a>

Table 2. Allergy.

Allergic and Non-Allergic Rhinitis	<a href="http://www.nationaljewish.org/medfacts/allergic_rhinitis.html">http://www.nationaljewish.org/medfacts/allergic_rhinitis.html</a>
Allergies and Allergic Reactions	<a href="http://www.allergy-drug.com/">http://www.allergy-drug.com/</a>
Allergy and Asthma Rochester Resource Center	<a href="http://www.aarrc.com/">http://www.aarrc.com/</a>
Allergy, Asthma & Immunology Online	<a href="http://allergy.mcg.edu/">http://allergy.mcg.edu/</a>
Asthma & Allergy Associates of Florida	<a href="http://www.allergyweb.com/">http://www.allergyweb.com/</a>
Sinusitis: A Treatment Plan That Works for asthma and allergies too	<a href="http://www.sinuses.com/index.htm">http://www.sinuses.com/index.htm</a>
The Food Allergy and Anaphylaxis Network	<a href="http://www.foodallergy.org/">http://www.foodallergy.org/</a>
The National Allergy Bureau	<a href="http://www.aaaai.org/nab/">http://www.aaaai.org/nab/</a>

Table 3. Smell.

About Pheromones	<a href="http://www.nysaes.cornell.edu/fst/faculty/acree/pheronet/pherom.html">http://www.nysaes.cornell.edu/fst/faculty/acree/pheronet/pherom.html</a>
Access Excellence - Molecular Basis of Good Taste	<a href="http://www.accessexcellence.org/WN/SUA12/taste299.html">http://www.accessexcellence.org/WN/SUA12/taste299.html</a>
Chemical Senses	<a href="http://chemse.oupjournals.org/">http://chemse.oupjournals.org/</a>
Chemoreceptors	<a href="http://www.unb.ca/courses/biol4775/SPAGES/SPAGE6.HTM">http://www.unb.ca/courses/biol4775/SPAGES/SPAGE6.HTM</a>
Flavornet	<a href="http://www.nysaes.cornell.edu/flavornet/">http://www.nysaes.cornell.edu/flavornet/</a>
Molecular Approaches to Olfaction	<a href="http://www.hhmi.org/science/neurosci/reed.htm">http://www.hhmi.org/science/neurosci/reed.htm</a>
OdorDB	<a href="http://senselab.med.yale.edu/senselab/OdorDB/default.asp">http://senselab.med.yale.edu/senselab/OdorDB/default.asp</a>
OdorMapDB	<a href="http://senselab.med.yale.edu/senselab/OdorMapDB/default.asp">http://senselab.med.yale.edu/senselab/OdorMapDB/default.asp</a>
Olfaction - A Review	<a href="http://www.leffingwell.com/olfaction.htm">http://www.leffingwell.com/olfaction.htm</a>
Olfaction et Odeurs	<a href="http://olfac.univ-lyon1.fr/O&amp;O/">http://olfac.univ-lyon1.fr/O&amp;O/</a>
Olfaction, a Tutorial on the Sense of Smell	<a href="http://www.cf.ac.uk/biosi/staff/jacob/teaching/sensory/olfact1.html">http://www.cf.ac.uk/biosi/staff/jacob/teaching/sensory/olfact1.html</a>
Olfactory Ensheathing Cells	<a href="http://duke.usask.ca/~rondouc/">http://duke.usask.ca/~rondouc/</a>
Olfactory Receptor Database	<a href="http://senselab.med.yale.edu/senselab/ORDB/default.asp">http://senselab.med.yale.edu/senselab/ORDB/default.asp</a>
Olfactory Nerve	<a href="http://info.med.yale.edu/caim/cnerves/cn1/cn1_1.html">http://info.med.yale.edu/caim/cnerves/cn1/cn1_1.html</a>
Pheromones	<a href="http://www.pheromones.com/">http://www.pheromones.com/</a>
Seeing, Hearing and Smelling the World - Howard Hughes Medical Inst.	<a href="http://www.hhmi.org/senses/">http://www.hhmi.org/senses/</a>
SenseLab Project	<a href="http://senselab.med.yale.edu/senselab/">http://senselab.med.yale.edu/senselab/</a>
Sensing Smell	<a href="http://www.hhmi.org/annual99/a243.html">http://www.hhmi.org/annual99/a243.html</a>
Smell / Olfaction	<a href="http://ep.llnl.gov/msds/orgchem/Chem226/smell-links.html">http://ep.llnl.gov/msds/orgchem/Chem226/smell-links.html</a>
Smell and Taste Disorders - NIDCD	<a href="http://www.nidcd.nih.gov/health/pubs_st/smell.htm">http://www.nidcd.nih.gov/health/pubs_st/smell.htm</a>
Smell and Taste Disorders	<a href="http://www.entdr.com/smell_taste.html">http://www.entdr.com/smell_taste.html</a>
Smell and Taste Disorders: A Primary Care Approach	<a href="http://www.aafp.org/afp/20000115/427.html">http://www.aafp.org/afp/20000115/427.html</a>
Smell Database - ModularCHEM Consortium, UC Regents, USA	<a href="http://mc2.cchem.berkeley.edu/Smells/index.html">http://mc2.cchem.berkeley.edu/Smells/index.html</a>
Smell Myths	<a href="http://zebra.biol.sc.edu/smell/ann/myth0.html">http://zebra.biol.sc.edu/smell/ann/myth0.html</a>
Smell: The Forgotten Sense	<a href="http://www.macalstr.edu/~psych/whathap/UBNRP/Smell/smell.html">http://www.macalstr.edu/~psych/whathap/UBNRP/Smell/smell.html</a>
Taste and Smell Links	<a href="http://ep.llnl.gov/msds/orgchem/Chem226/smell-links.html">http://ep.llnl.gov/msds/orgchem/Chem226/smell-links.html</a>
The Chemoreception Web	<a href="http://www.csa.com/crw/home.html">http://www.csa.com/crw/home.html</a>
The Molecular Logic of Olfaction	<a href="http://www.hhmi.org/science/neurosci/axel.htm">http://www.hhmi.org/science/neurosci/axel.htm</a>
The Osme Fellowship	<a href="http://www.btinternet.com/~oakwoods/smell.taste.html">http://www.btinternet.com/~oakwoods/smell.taste.html</a>
The Vomeronasal Organ	<a href="http://neuro.fsu.edu/research/vomer.htm">http://neuro.fsu.edu/research/vomer.htm</a>
Tim Jacob - Smell Research	<a href="http://www.cf.ac.uk/biosi/staff/jacob/index.html">http://www.cf.ac.uk/biosi/staff/jacob/index.html</a>

Table 4. Rhinology Clinics and Research Centers.

Chemosensory Perception Laboratory, University of California, USA	<a href="http://orpheus.ucsd.edu/chemosensorylab/">http://orpheus.ucsd.edu/chemosensorylab/</a>
Craniofacial Surgical Planning and Simulation - Telecommunications Institute, University Erlangen-Nuremberg, Germany	<a href="http://www-nt.e-technik.uni-erlangen.de/~keeve/IntOps.html">http://www-nt.e-technik.uni-erlangen.de/~keeve/IntOps.html</a>
Comprehensive Sinus Clinic	<a href="http://www.slucare.edu/sinusclinic/">http://www.slucare.edu/sinusclinic/</a>
Howard Hughes Medical Institute	<a href="http://www.hhmi.org/">http://www.hhmi.org/</a>
Monell Chemical Senses Center	<a href="http://www.monell.org/">http://www.monell.org/</a>
Nasal Dysfunction Clinic	<a href="http://www-surgery.ucsd.edu/ent/DAVIDSON/NDC/booklet.htm">http://www-surgery.ucsd.edu/ent/DAVIDSON/NDC/booklet.htm</a>
Neurosciences & Systèmes Sensoriels, Université Claude Bernard Lyon, France	<a href="http://olfac.univ-lyon1.fr/">http://olfac.univ-lyon1.fr/</a>
Northwest Facial Plastics Center and the Northwest Nasal Sinus Center	<a href="http://www.nwface.com/">http://www.nwface.com/</a>
Sense of Smell Institute	<a href="http://www.senseofsmell.org/home.asp">http://www.senseofsmell.org/home.asp</a>
Sensory Research Institute	<a href="http://www.psy.fsu.edu/~fsusri/">http://www.psy.fsu.edu/~fsusri/</a>
Smell and Taste Center of Pennsylvania	<a href="http://www.uphs.upenn.edu/pennorl/servcent.htm">http://www.uphs.upenn.edu/pennorl/servcent.htm</a>
Southern California Nasal and Sinus Care Center	<a href="http://toffelcenter.com/index.html">http://toffelcenter.com/index.html</a>
Stanford Sinus Center	<a href="http://american-rhinologic.org/images/stanford.jpg">http://american-rhinologic.org/images/stanford.jpg</a>
Taste and Smell Center, University of Connecticut, USA	<a href="http://www.uchc.edu/uconntasteandsmell/index.html">http://www.uchc.edu/uconntasteandsmell/index.html</a>
Taste and Smell Clinic	<a href="http://www.tasteandsmell.com/">http://www.tasteandsmell.com/</a>
Taste and Smell Disorders Clinic	<a href="http://www.blkbox.com/~rdevere/tsdc/">http://www.blkbox.com/~rdevere/tsdc/</a>
The Japanese Association for the Study of Taste and Smell	<a href="http://epn.hal.kagoshima-u.ac.jp/JASTSE/index.html">http://epn.hal.kagoshima-u.ac.jp/JASTSE/index.html</a>
The Nose & Sinus Center	<a href="http://www.thenosedoctor.com/">http://www.thenosedoctor.com/</a>
The OFCN Ear, Nose and Throat Clinic	<a href="http://ofcn.org/cyber.serv/hwp/hwc/ent/">http://ofcn.org/cyber.serv/hwp/hwc/ent/</a>
The Rocky Mountain Taste and Smell Center	<a href="http://www.uchsc.edu/sm/otolaryn/rmtsc.html">http://www.uchsc.edu/sm/otolaryn/rmtsc.html</a>

Table 5. Organizations and Societies.

American Academy of Facial Plastic and Reconstructive Surgery	<a href="http://www.facial-plastic-surgery.org/">http://www.facial-plastic-surgery.org/</a>
American Academy of Otolaryngologic Allergy	<a href="http://www.aaof.org/">http://www.aaof.org/</a>
American Academy of Otolaryngology - Head and Neck Surgery	<a href="http://www.entnet.org/">http://www.entnet.org/</a>
American Board of Facial Plastic and Reconstructive Surgery	<a href="http://www.abfprs.org/">http://www.abfprs.org/</a>
American Board of Otolaryngology	<a href="http://www.aboto.org/">http://www.aboto.org/</a>
American Laryngological, Rhinological and Otological Society	<a href="http://www.triological.com/">http://www.triological.com/</a>
American Rhinologic Society	<a href="http://www.american-rhinologic.org/">http://www.american-rhinologic.org/</a>
American Society for Head and Neck Surgery	<a href="http://www.4woman.gov/nwhic/references/mdreferrals/ashns.htm">http://www.4woman.gov/nwhic/references/mdreferrals/ashns.htm</a>
Association for Chemoreception Sciences	<a href="http://www.achems.org/">http://www.achems.org/</a>
Associação Portuguesa de Otoneurologia	<a href="http://www.otoneuro.pt/">http://www.otoneuro.pt/</a>
Association Nationale des ORL en Formation	<a href="http://www.anof.com/anof/index.html">http://www.anof.com/anof/index.html</a>
Association pour la Recherche et l'Enseignement en Chirurgie Laryngologique, Otologique et Rhinologique	<a href="http://perso.wanadoo.fr/lucien.gomulinski/">http://perso.wanadoo.fr/lucien.gomulinski/</a>
Australian Society of Otolaryngology Head & Neck Surgery	<a href="http://www.asohns.org.au/">http://www.asohns.org.au/</a>
Canadian Society of Otolaryngology - Head and Neck Surgery	<a href="http://www.csohns.com/">http://www.csohns.com/</a>
Dutch Association of Otorhinolaryngology and Head & Neck Surgery	<a href="http://www.kno.nl/">http://www.kno.nl/</a>
ENT India Online	<a href="http://members.tripod.com/~entindia/">http://members.tripod.com/~entindia/</a>
European Chemoreception Research Organisation	<a href="http://www.ecro.de/">http://www.ecro.de/</a>
Federation Argentina Sociedades Otorrinolaryngologia	<a href="http://www.faso.org.ar/">http://www.faso.org.ar/</a>
French ORL Society	<a href="http://www.orl-france.org/index_US_november.html">http://www.orl-france.org/index_US_november.html</a>
German Society of Otorhinolaryngology, Head and Neck Surgery	<a href="http://www.hno.org/">http://www.hno.org/</a>
German-Spanish Society of Otolaryngology	<a href="http://www.med.uni-muenchen.de/~hno/sdg/">http://www.med.uni-muenchen.de/~hno/sdg/</a>
Greek Society of Rhinology	<a href="http://www.hellenicrhinologic.gr/">http://www.hellenicrhinologic.gr/</a>
International Federation of Oto-Rhino-Laryngological Societies	<a href="http://www.ifosworld.org/">http://www.ifosworld.org/</a>
Italian Academy of Rhinology	<a href="http://web.tin.it/iar/">http://web.tin.it/iar/</a>
Japan Federation of Ear Nose and Throat	<a href="http://www4.justnet.ne.jp/~iren/RENG.HTM">http://www4.justnet.ne.jp/~iren/RENG.HTM</a>
Mexican Federation of ORL	<a href="http://www.fesormex.org.mx/">http://www.fesormex.org.mx/</a>
Mexican Society of Otolaryngology	<a href="http://www.starnet.net.mx/otorrino/">http://www.starnet.net.mx/otorrino/</a>
New Zealand Society of Otolaryngology Head and Neck Surgery	<a href="http://www.orl.org.nz/">http://www.orl.org.nz/</a>
Oto-Rhino-Laryngological Society of Japan	<a href="http://www.jibika.or.jp/">http://www.jibika.or.jp/</a>
Panhellenic Society of Otolaryngology	<a href="http://www.hellasorl.gr/">http://www.hellasorl.gr/</a>
Philippine Society of Otolaryngology Head and Neck Surgery	<a href="http://www.psohns.org.ph/index.php">http://www.psohns.org.ph/index.php</a>
Sociedad Ecuatoriana de Rinologia y Cirugía Facial	<a href="http://www.medicosecuador.com/serf/editorial.htm">http://www.medicosecuador.com/serf/editorial.htm</a>
Société Française de Chirurgie Plastique et Esthétique de la Face et du Cou	<a href="http://www.sfcpefc.org/">http://www.sfcpefc.org/</a>
Société Française d' ORL	<a href="http://sforl.affinitesante.com/affinite/login.asp?RequestedAsso=SFORL&amp;pouet=">http://sforl.affinitesante.com/affinite/login.asp?RequestedAsso=SFORL&amp;pouet=</a>
Societa Italiana di Otorinolaringologia e Chirurgia Cervico-Facciale	<a href="http://www.sioechcf.it/">http://www.sioechcf.it/</a>
Society for Neuroscience	<a href="http://web.sfn.org/Template.cfm">http://web.sfn.org/Template.cfm</a>
Spanish Society of Otolaryngology	<a href="http://www.seorl.org/">http://www.seorl.org/</a>
Syndicat des Médecins Spécialisés en O.R.L. & Chirurgie Cervico-faciale	<a href="http://www.csmf.org/CSMFUMESPE/SMSorl.html">http://www.csmf.org/CSMFUMESPE/SMSorl.html</a>

breadth and the content of the included resources have remarkably increased (Rothschild, 1996; Kuppersmith, 1996; Hutchinson, 1997; Saada, 1998; Rothschild and Kuppersmith, 1999). Many scientific associations, medical journals, academic departments, biomedical libraries and specialists, maintain on the world-wide web interesting sites with information about their activities (Tan, 1997). Useful sites to both, specialists and patients, may also be found on the web, providing educational material (Murphy, 1998), statistical data and all of the modern developments in rhinology. The aim of this paper is to present a detailed list of these sites, classified in broad categories.

## DISCUSSION

Several sites including description of new endoscopic methods

of nasal and paranasal sinuses assessment and surgical treatment are presented. In addition, special effort was given to collect information concerning new operative techniques and their related advantages and disadvantages in facial plastic and reconstructive surgery and, especially, in rhinoplasty.

The allergy sites include information about etiology, pathophysiology, diagnosis and treatment of allergic and non-allergic rhinitis. Several other diseases of allergic origin, such as asthma and sinusitis, are included as well. Modern therapeutic guidelines are recommended, based on the significantly increased knowledge about the pathophysiology of these diseases.

The pathway of the sense of smell, starting from the molecular base of olfaction, the role of pheromones and the function of

Table 6. Journals.

Acta Oto-Laryngologica	<a href="http://www.tandf.co.uk/journals/titles/00016489.html">http://www.tandf.co.uk/journals/titles/00016489.html</a>
Acta Oto-Laryngologica Italica	<a href="http://www.uniud.it/acta/">http://www.uniud.it/acta/</a>
Advances in Oto-Rhino-Laryngology	<a href="http://www.karger.com/bookseries/adorl/adorl.htm">http://www.karger.com/bookseries/adorl/adorl.htm</a>
Allergy	<a href="http://www.blackwell-synergy.com/servlet/useragent?func=showIssues&amp;code=all">http://www.blackwell-synergy.com/servlet/useragent?func=showIssues&amp;code=all</a>
Allergy and Asthma Proceedings	<a href="http://www.oceansidepubl.com/allasth.html">http://www.oceansidepubl.com/allasth.html</a>
Allergy and Clinical Immunology International	<a href="http://www.acii.net/">http://www.acii.net/</a>
American Journal of Otolaryngology - Head and Neck Surgery	<a href="http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=ajot">http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=ajot</a>
American Journal of Rhinology	<a href="http://www.oceansidepubl.com/rhinology.html">http://www.oceansidepubl.com/rhinology.html</a>
Annales d' Otolaryngologie et de Chirurgie Cervico-Faciale	<a href="http://www.masson.fr/pages/recsimp/fichliv.asp?PRO_Code_GPE=230">http://www.masson.fr/pages/recsimp/fichliv.asp?PRO_Code_GPE=230</a>
Annals of Otolaryngology, Rhinology and Laryngology	<a href="http://www.annals.com/">http://www.annals.com/</a>
Archives of Otolaryngology-Head and Neck Surgery	<a href="http://archotol.ama-assn.org/">http://archotol.ama-assn.org/</a>
Auris Nasus Larynx	<a href="http://www.elsevier.nl/inca/publications/store/6/0/0/1/0/4/">http://www.elsevier.nl/inca/publications/store/6/0/0/1/0/4/</a>
Biomed Central Ear Nose & Throat Disorders	<a href="http://www.biomedcentral.com/bmcearnosethroatdisord/">http://www.biomedcentral.com/bmcearnosethroatdisord/</a>
Clinical Otolaryngology and Allied Sciences	<a href="http://www.blacksci.co.uk/products/journals/cotol.htm">http://www.blacksci.co.uk/products/journals/cotol.htm</a>
Chemical Senses	<a href="http://chemse.oupjournals.org/">http://chemse.oupjournals.org/</a>
Ear Nose Throat Journal	<a href="http://www.entjournal.com/">http://www.entjournal.com/</a>
European Archives of Oto-Rhino-Laryngology	<a href="http://link.springer-ny.com/link/service/journals/00405/index.htm">http://link.springer-ny.com/link/service/journals/00405/index.htm</a>
Facial Plastic Surgery Clinics of North America	<a href="http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=cfps">http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=cfps</a>
Head & Neck	<a href="http://www.interscience.wiley.com/jpages/1043-3074/">http://www.interscience.wiley.com/jpages/1043-3074/</a>
HNO	<a href="http://link.springer.de/link/service/journals/00106/index.htm">http://link.springer.de/link/service/journals/00106/index.htm</a>
International Journal of Plastic and Aesthetic Surgery (on line)	<a href="http://www.imedical.com/ijpas/">http://www.imedical.com/ijpas/</a>
Journal of Allergy and Clinical Immunology Online	<a href="http://www2.us.elsevierhealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=ai">http://www2.us.elsevierhealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=ai</a>
Journal of Laryngology and Otolaryngology	<a href="http://www.jlo.co.uk/">http://www.jlo.co.uk/</a>
Journal of Neurophysiology	<a href="http://jn.physiology.org/">http://jn.physiology.org/</a>
Journal of Neuroscience	<a href="http://www.jneurosci.org/">http://www.jneurosci.org/</a>
Journal of Otolaryngology	<a href="http://bcdecker.yy.net/cgi-bin/tangocgi.exe/tango/decker/journals/-journal.qry?function=view&amp;ID=14&amp;_UserReference=1513358204">http://bcdecker.yy.net/cgi-bin/tangocgi.exe/tango/decker/journals/-journal.qry?function=view&amp;ID=14&amp;_UserReference=1513358204</a>
La Lettre d'ORL et de Chirurgie Cervico-faciale	<a href="http://www.edimark.fr/orl.asp">http://www.edimark.fr/orl.asp</a>
La Revue Officielle de la Societe Francaise	<a href="http://www.sforl.com/affinite/login.asp?RequestedAsso=SFORL&amp;pouet=">http://www.sforl.com/affinite/login.asp?RequestedAsso=SFORL&amp;pouet=</a>
Laryngo-Rhino-Otologie	<a href="http://www.thieme.de/lary/index.html">http://www.thieme.de/lary/index.html</a>
Laryngoscope	<a href="http://www.laryngoscope.com/">http://www.laryngoscope.com/</a>
ORL	<a href="http://www.karger.com/journals/orl/orl_jh.htm">http://www.karger.com/journals/orl/orl_jh.htm</a>
Operative Techniques in Otolaryngology - Head and Neck Surgery	<a href="http://www.harcourthealth.com/cgi-bin/displaypage.pl?isbn=10431810">http://www.harcourthealth.com/cgi-bin/displaypage.pl?isbn=10431810</a>
Otolaryngologic Clinics of North America	<a href="http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=coto">http://www.harcourthealth.com/scripts/om.dll/serve?action=searchDB&amp;searchDBfor=home&amp;id=coto</a>
Otolaryngology-Head and Neck Surgery	<a href="http://www1.mosby.com/mosbyscripts/mosby.dll?action=searchDB&amp;searchDBfor=home&amp;id=HN">http://www1.mosby.com/mosbyscripts/mosby.dll?action=searchDB&amp;searchDBfor=home&amp;id=HN</a>
Oto-Rhino-Laryngologia Nova	<a href="http://www.karger.com/journals/orn/orn_jh.htm">http://www.karger.com/journals/orn/orn_jh.htm</a>
Revue de Laryngologie, Otologie, Rhinologie	<a href="http://www.revue-laryngologie.com/">http://www.revue-laryngologie.com/</a>
Rhinology	<a href="http://www.rhinologyjournal.com/">http://www.rhinologyjournal.com/</a>
RhinoNewsPro (on-line)	<a href="http://www.rhinologie.com/rhinonews/med.htm">http://www.rhinologie.com/rhinonews/med.htm</a>

the receptors at the olfactory region of the nose and reaching up to the olfactory centers of the human brain, are described in the related sites. New clinical data about smell disorders and basically about pathogenesis, diagnosis and treatment are included as well. Clinical centers specialized in patient care, diagnosis and treatment of nasal and paranasal sinuses diseases are also included.

The group of professional or support organizations, societies

and associations concerning otolaryngology, or specifically rhinology, includes many web sites with information about the objects and rules of the organization, announcements, educational material and membership information. Worldwide distribution of these organizations is observed.

Most otolaryngology journals are represented well on the Internet, by sites including information about the publishing companies, instructions to authors, information to subscribers and prices. Abstracts and lists of contents of all the past issues

Table 7. Discussions.

Craniofacial Plastic Surgery List	<a href="mailto:Cfsurg-L@cesar.unicamp.br">mailto:Cfsurg-L@cesar.unicamp.br</a>
FACENet: Facial Plastic Surgery Discussions maintained by Dr. Arlen Meyers	<a href="mailto:FACENet-request@tali.uchs.edu">mailto:FACENet-request@tali.uchs.edu</a>
Forum AWMF online	<a href="http://foren.medizin-forum.de/articles.public/?newsgroup=52&amp;lid=51">http://foren.medizin-forum.de/articles.public/?newsgroup=52&amp;lid=51</a>
French ORL discussions	<a href="http://perso.club-internet.fr/listeorl/">http://perso.club-internet.fr/listeorl/</a>
Italian newsgroups	<a href="http://www.aooi.it/">http://www.aooi.it/</a>
Otolaryngology mailing lists from Bobby R. Alford - Department of ORL and Communicative Sciences, maintained by R.B. KupperSmith	<a href="mailto:Info@otohns.net">mailto:Info@otohns.net</a>
OTOHNS e-mail list	<a href="http://www.otohns.net/forms/forumreg.asp">http://www.otohns.net/forms/forumreg.asp</a>
OTORRINO: Spanish Otolaryngology Discussions maintained by Dr. F. Rodriguez de la Fuente	<a href="mailto:listserv@listserv.rediris.es">mailto:listserv@listserv.rediris.es</a>
Rhinology Discussions: Nose listserv maintained by Dr. R. Eccles	<a href="http://www.jiscmail.ac.uk/lists/nose.html">http://www.jiscmail.ac.uk/lists/nose.html</a>
Spanish ORL discussions	<a href="http://personal.redestb.es/frdelafuente/orl1.htm">http://personal.redestb.es/frdelafuente/orl1.htm</a>
Usenet group: Sinusitis	<a href="news:alt.support.sinusitis">news:alt.support.sinusitis</a>
Neuroscience	<a href="news:bionet.neuroscience">news:bionet.neuroscience</a>

Table 8. News and Medical Conferences.

ARO News	<a href="http://www.aro.org/news/news.html">http://www.aro.org/news/news.html</a>
Association for Research in Otolaryngology	<a href="http://www.aro.org/">http://www.aro.org/</a>
Cancer News on the Net	<a href="http://www.cancernews.com/">http://www.cancernews.com/</a>
CME Infostore	<a href="http://www.cmeinfostore.com/">http://www.cmeinfostore.com/</a>
Conference Papers Index	<a href="http://library.dialog.com/bluesheets/html/bl0077.html">http://library.dialog.com/bluesheets/html/bl0077.html</a>
Congress Resource Center	<a href="http://www.docguide.com/crc.nsf/web-bySpecDisp?OpenForm&amp;spec=Otorhinolaryngology">http://www.docguide.com/crc.nsf/web-bySpecDisp?OpenForm&amp;spec=Otorhinolaryngology</a>
Doctor's Guide	<a href="http://www.docguide.com/dgc.nsf/ge/Unregistered.User.545434">http://www.docguide.com/dgc.nsf/ge/Unregistered.User.545434</a>
Doctor's guide to Otolaryngology Meetings and Conferences	<a href="http://www.pslgroup.com/dg/otorhino.htm">http://www.pslgroup.com/dg/otorhino.htm</a>
Head and Neck Newsletter	<a href="http://www.bcm.tmc.edu/oto/headneck.html">http://www.bcm.tmc.edu/oto/headneck.html</a>
Medical Conferences	<a href="http://www.medicalconferences.com/">http://www.medicalconferences.com/</a>
Medical News from Doctors Guide	<a href="http://main.pslgroup.com/news/content.nsf/AllMedicalNews?Openform">http://main.pslgroup.com/news/content.nsf/AllMedicalNews?Openform</a>
MediConf - Otorhinolaryngology Meetings	<a href="http://www.mediconf.com/scme/8027.HTM">http://www.mediconf.com/scme/8027.HTM</a>
News Archive from National Institute of Clinical Excellence	<a href="http://www.nice.org.uk/cat.asp?c=28014">http://www.nice.org.uk/cat.asp?c=28014</a>
Otohns.net	<a href="http://www.otohns.net/news/news.asp">http://www.otohns.net/news/news.asp</a>
RhinoNewsPRO	<a href="http://www.rhinologie.com/rhinonews/med.htm">http://www.rhinologie.com/rhinonews/med.htm</a>

Table 9. Otolaryngology Resources on the Internet.

Caducée.net - ORL	<a href="http://www.caducee.net/Sites/DetailSousRubrique.asp?idsr=47">http://www.caducee.net/Sites/DetailSousRubrique.asp?idsr=47</a>
Guide to Otolaryngology on the Internet - Baylor College of Medicine	
Bobby R. Alford Department of Otorhinolaryngology and Communicative Sciences	<a href="http://www.bcm.tmc.edu/oto/others.html">http://www.bcm.tmc.edu/oto/others.html</a>
Hardin Meta Directory	<a href="http://www.lib.uiowa.edu/hardin/md/idx.html">http://www.lib.uiowa.edu/hardin/md/idx.html</a>
HealthWeb Otolaryngology	<a href="http://healthweb.org/browse.cfm?subjectid=69">http://healthweb.org/browse.cfm?subjectid=69</a>
Karolinska Institute: Otorhinolaryngologic Diseases	<a href="http://www.mic.ki.se/Diseases/c9.html/">http://www.mic.ki.se/Diseases/c9.html/</a>
Med Mark - Otorhinolaryngology	<a href="http://www.medmark.org/orl/">http://www.medmark.org/orl/</a>
Medical Matrix	<a href="http://www.medmatrix.org/reg/login.asp">http://www.medmatrix.org/reg/login.asp</a>
Medical W.W.Compass-Otolaryngology	<a href="http://www.mahoroba.ne.jp/~misaeki/compass/index.html">http://www.mahoroba.ne.jp/~misaeki/compass/index.html</a>
Medweb - Otolaryngology	<a href="http://www.medweb.emory.edu/MedWeb/">http://www.medweb.emory.edu/MedWeb/</a>
ORL FRANCE	<a href="http://orl-france.org/portail.html">http://orl-france.org/portail.html</a>
ORL Pelo Mundo	<a href="http://www.hcnet.usp.br/otorrino/orledu.htm">http://www.hcnet.usp.br/otorrino/orledu.htm</a>
Otorhinolaryngologic Diseases - CliniWeb International	<a href="http://www.ohsu.edu/clinweb/C9/C9.html">http://www.ohsu.edu/clinweb/C9/C9.html</a>
Otolaryngology Links on the World Wide Web/Mount Sinai	<a href="http://www.mssm.edu/ent/links.shtml">http://www.mssm.edu/ent/links.shtml</a>
Otolaryngology Resources on the Internet, John Serry, MD	<a href="http://www.users.interport.net/~jsherry/entlist2.html">http://www.users.interport.net/~jsherry/entlist2.html</a>
Otowelb	<a href="http://www.medsch.wisc.edu/otowelb/">http://www.medsch.wisc.edu/otowelb/</a>
Otowelb - Department of Otolaryngology-Head and Neck Surgery at the University of Washington School of Medicine	<a href="http://depts.washington.edu/otowelb/contents.html">http://depts.washington.edu/otowelb/contents.html</a>
Sites Francophones d'Otorhinolaryngologie	<a href="http://www.chu-rouen.fr/ssf/orlfr.html">http://www.chu-rouen.fr/ssf/orlfr.html</a>
Spanish ORL Resources	<a href="http://personal.redestb.es/frdelafuente/#ENLACES">http://personal.redestb.es/frdelafuente/#ENLACES</a>
Yahoo - Otolaryngology	<a href="http://dir.yahoo.com/Health/Medicine/Otolaryngology/">http://dir.yahoo.com/Health/Medicine/Otolaryngology/</a>

Table 10. Miscellaneous.

3-D Reconstruction of the Nasal Passageways	<a href="http://www.mco.edu/cci/projects/cool.html#">http://www.mco.edu/cci/projects/cool.html#</a>
Animation of Nasal Passages	<a href="http://www.innerbody.com/anim/nasal.html">http://www.innerbody.com/anim/nasal.html</a>
CancerNet at the National Cancer Institute	<a href="http://cancerweb.ncl.ac.uk/cancerweb/101402.html">http://cancerweb.ncl.ac.uk/cancerweb/101402.html</a>
Electronic Noses and their Applications	<a href="http://www.emsl.pnl.gov:2080/proj/neuron/papers/keller.wcnn96.html">http://www.emsl.pnl.gov:2080/proj/neuron/papers/keller.wcnn96.html</a>
Free Medline Search: Pubmed	<a href="http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed/">http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed/</a>
Grossan Sinus Irrigator	<a href="http://immunotek.com/xltek3.html">http://immunotek.com/xltek3.html</a>
Handbook of Nasal Disease	<a href="http://www.surgery.ucsd.edu/ent/davidson/NASHAND/nasal.htm">http://www.surgery.ucsd.edu/ent/davidson/NASHAND/nasal.htm</a>
HNOnline Gallery of Clinical Photographs	<a href="http://www.med.uni-muenchen.de/~hno/hnonline/homepage.eng.html">http://www.med.uni-muenchen.de/~hno/hnonline/homepage.eng.html</a>
Nasopharyngeal cancer - National Cancer Institute	<a href="http://cancerweb.ncl.ac.uk/cancerweb/101402.html">http://cancerweb.ncl.ac.uk/cancerweb/101402.html</a>
Paranasal Sinus and Nasal Cavity Cancer - National Cancer Institute	<a href="http://cancerweb.ncl.ac.uk/cancerweb/102892.html">http://cancerweb.ncl.ac.uk/cancerweb/102892.html</a>
Sensonics, Inc.	<a href="http://www.sensonics.com/">http://www.sensonics.com/</a>
SinuCare	<a href="http://www.sinucare.com/">http://www.sinucare.com/</a>
Sinusitis: A Treatment Plan That Works	<a href="http://www.sinuses.com/toc.htm">http://www.sinuses.com/toc.htm</a>
The Merck Manual: Smell and Taste Disorders	<a href="http://www.merck.com/pubs/mmanual_home/sec6/72.htm">http://www.merck.com/pubs/mmanual_home/sec6/72.htm</a>
The Nose Project	<a href="http://www.wag.caltech.edu/muri/">http://www.wag.caltech.edu/muri/</a>
The Sinus Cure	<a href="http://immunotek.com/xSinuscure.htm">http://immunotek.com/xSinuscure.htm</a>
University of Pennsylvania Otolaryngology Referral Center	<a href="http://www.entconsult.com/">http://www.entconsult.com/</a>
University of Pennsylvania Smell Identification Test	<a href="http://www.sensonics.com/Merchant2/merchant.mvc?Screen=CTGY&amp;Store_Code=SI&amp;Category_Code=STP">http://www.sensonics.com/Merchant2/merchant.mvc?Screen=CTGY&amp;Store_Code=SI&amp;Category_Code=STP</a>
Virtual Images of Nasal Cavity and Paranasal Sinuses, Kanazawa Municipal Hospital	<a href="http://www.ient.or.jp/">http://www.ient.or.jp/</a>

are usually included, and sometimes full text articles accompanied by graphics and videos may be obtained. Although most of these journals are specialized in otolaryngology in general, a few of them include exclusively rhinology issues. On-line orders and subscription by e-mail are usually possible. Discussion groups and mailing lists about rhinology aspects maintained by various specialists or academic departments offer valuable information to other professionals or patients about various rhinology topics. Immediate interaction between the referring and consulting physician is usually possible, resulting in the acquisition of knowledge-based information and the improvement of medical education.

ENT news and otolaryngology conferences is a section with a few sites, but very useful to the busy specialists, because all new developments in otolaryngology are presented and information about upcoming medical conferences is available. Apart from news and conferences of general interest, specific rhinology topics are included as well.

Collective lists of otolaryngology resources on the Internet, including rhinology resources, are presented separately and some of them are an excellent start for navigation, by using the links of each site.

Finally, miscellaneous links of interest to the rhinologists or the patients are presented, such as cancer news, medical information concerning rhinologic diseases or imaging rhinologic material.

In conclusion, rhinology resources on the Internet have greatly expanded during recent years. The aim of this paper is to present a detailed list of all web sites of interest to rhinologists, in order to assist professionals familiar with the Internet to find any information easily, and further, to promote the usefulness of the Internet to specialists who are not quite acquainted with this medium.

## REFERENCES

- Burgess LP, Holtel MR, Syms MJ, Birkmire-Peters DP, Peters LJ, Mashima PA (1999). Overview of telemedicine applications for otolaryngology. *Laryngoscope* 109: 1433-1437.
- Głowniak JV (1995). Medical resources on the Internet. *Ann Intern Med* 123: 123-131.
- Hutchinson D (1997). The Internet for healthcare professionals. *ORL Head Neck Nurs* 15: 9-14.
- Kuppersmith RB (1996). A guide to otolaryngology resources on the Internet. *Otolaryngol Head Neck Surg* 115: 335-341.
- Kuppersmith RB, Holsinger C, Jenkins HA (1996). The use of E-mail by otolaryngologists. *Arch Otolaryngol Head Neck Surg* 122: 921-922.
- Kuppersmith RB, Stewart MG, Ohlms LA, Coker NJ (1997). Use of an Internet-based journal club. *Otolaryngol Head Neck Surg* 116: 497-498.
- Murphy KR (1998). Computer-based patient education. *Otolaryngol Clin North Am* 31: 309-317.
- Pallen M (1995). Introducing the Internet. *BMJ* 311: 1422-1424.
- Rothschild M (1996). Otolaryngology and the Internet. *Otolaryngol Head Neck Surg* 115: 123-131.
- Rothschild MA, Kuppersmith R (1999). Internet resources in otolaryngology-head and neck surgery. *JAMA* 281: 971-972.
- Saada AA (1998). On-line resources for otolaryngologists. *J Laryngol Otol* 112: 854-859.
- Tan AK (1997). Otolaryngology web site. *J Otolaryngol* 26: 31-35.

Dimitrios Balatsouras  
23 Achaion Str. - Agia Paraskevi  
15343 - Athens  
GREECE

Tel.: +301 0600 4683  
Fax Nr.: +301 04592671  
E-mail: dbalats@hotmail.com