Stanford



Richard Barth

Professor of Radiology (Pediatric Radiology) and, by courtesy, of Obstetrics and Gynecology (Maternal Fetal Medicine)

Radiology - Pediatric Radiology

Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

- **Pediatric Radiology**

  725 Welch Rd Rm 1854

  MC 5913

  Palo Alto, CA 94304

  Tel (650) 497-8376 **Fax** (650) 498-9865

Bio

CLINICAL FOCUS

- Pediatric Radiology
- Fetal Imaging

ACADEMIC APPOINTMENTS

- Professor-Univ Med Line, Radiology - Pediatric Radiology
- Professor-Univ Med Line (By courtesy), Obstetrics & Gynecology - Maternal Fetal Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Associate Chairman, Stanford University School of Medicine - Radiology, (1992- present)
- Radiologist-In- Chief, Lucile Packard Childrens Hospital at Stanford, (2003- present)

HONORS AND AWARDS

- Outstanding Alumni Award, UCSF Radiology Department Alumnus of the Year (2009)
- 2nd Vice President and Board of Directors, Society for Pediatric Radiology (2010)
- Presidential Recognition Award, Society for Pediatric Radiology (2010)
- President, SCORCH (Society of Chairmen of Radiology Departments at Children's Hospitals (2010-2011)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Commission on Pediatric Radiology, American College of Radiology (2018 - present)
- Board of Chancellors, American College of Radiology (2018 - present)
- Board of Directors, Society for Pediatric Radiology (2012 - present)
- Board of Directors, World Federation of Pediatric Imaging (2017 - present)
- Board, Academy for Radiology Research (2016 - present)

- Chair, Radiology Advisory Committee, US News Best Chldren's Hospital Survey (2016 - present)

PROFESSIONAL EDUCATION

- Residency: UCSF Dept of Radiology (1980) CA
- Fellowship: Boston Children's Hospital (1981) MA
- Medical Education: Rosalind Franklin University The Chicago Medical School (1975) IL
- Board Certification: Diagnostic Radiology, American Board of Radiology (1980)
- Board Certification: Pediatric Radiology, American Board of Radiology (1995)
- Internship: Cedars-Sinai Medical Center (1977) CA

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Magnetic Resonance Imaging and Sonographic diagnosis of fetal anomalies.

Focus interest in the diagnosis and conservative (non-surgical and minimal radiation) management of congenital broncho pulmonary malformations.

Imaging of appendicitis in children.

Sonography of the pediatric testis.

Publications

PUBLICATIONS

- **Reply.** *Journal of the American College of Radiology : JACR*
  Guan, A., Iyer, R. S., Barth, R. A., Lall, N., Desai, N. K., Hayatghaibi, S., Ayyala, R. S., Jones, B. V., Dillman, J. R.
  2026
- **Assessing family engagement and acceptance of patient-friendly radiology reports at two academic children's hospitals.** *Pediatric radiology*
  Johnston, A., Gatidis, S., Fong, P., Frush, D., Janos, S., Barth, R.
  2026
- **Pediatric MRI Safety: Frequency, Types, and Severity of Zone IV MRI Safety Events at Five U.S. Children's Hospitals.** *Journal of the American College of Radiology : JACR*
  Guan, A., Iyer, R. S., Barth, R. A., Lall, N., Desai, N. K., Hayatghaibi, S., Ayyala, R. S., Jones, B. V., Dillman, J. R.
  2026
- **Exploring the association between BMI and liver fat in children: a study using ultrasound-derived fat fraction (UDFF).** *Pediatric radiology*
  Moeremans, M., Barth, R. A., Zalcman, M., Rubesova, E.
  2025
- **2022 and 2023 ACR/RBMA Workforce Surveys: Focus on Pediatric Radiology.** *Journal of the American College of Radiology : JACR*
  Farmakis, S. G., Rubin, E., Parris, D., Tarrant, J., Bulas, D., Barth, R. A.
  2025
- **Pallister-Killian Syndrome.** *NeoReviews*
  Chitkara, R., Chock, V., Barth, R., Dahmoush, H., Smith, C., Matalon, D. R., Herring, M., Hintz, S.
  2024; 25 (11): e751-e756
- **A Novel Fetal Magnetic Resonance Imaging Lung Volume Nomogram Stratified by Estimated Fetal Weight.** *Fetal diagnosis and therapy*
  Farladansky-Gershnabel, S., Jayapal, P., Zalcman, M., Barth, R. A., Rubesova, E., Hintz, S. R., Zhang, J., Leonard, S. A., El-Sayed, Y. Y., Blumenfeld, Y. J.
  2024: 1-8
- **Perspective: Author's Reply.** *Academic radiology*
  Farmakis, S. G., Chertoff, J. D., Straus, C. M., Barth, R. A.

2024

- **The 2021 ACR/RBMA Workforce Survey: Subspecialty Focus on Pediatric Radiology.** *Journal of the American College of Radiology : JACR*
  Farmakis, S. G., Tarrant, J., Parris, D., Markovich, D., Rubin, E., Barth, R. A.
  2023
- **Prenatal Diagnosis and Postnatal Management of a Fetal Pericardial Mass.** *NeoReviews*
  Weigel, N., Hintz, S., Kaplinski, M., Barth, R., Balakrishnan, K., Panelli, D., Ma, M., Chitkara, R.
  2023; 24 (10): e683-e689
- **Real-time ultrasound-derived fat fraction in pediatric population: feasibility validation with MR-PDFF.** *Pediatric radiology*
  Zalcman, M., Barth, R. A., Rubesova, E.
  2023
- **Use of Artificial Intelligence in Radiology: Impact on Pediatric Patients, a White Paper From the ACR Pediatric AI Workgroup.** *Journal of the American College of Radiology : JACR*
  Sammer, M. B., Akbari, Y. S., Barth, R. A., Blumer, S. L., Dillman, J. R., Farmakis, S. G., Frush, D., Gokli, A., Halabi, S., Iyer, R., Joshi, A., Kwon, J. K., Otero, et al
  2023
- **Treatment of Fetal Cystic Fibrosis With Cystic Fibrosis Transmembrane Conductance Regulator Modulation Therapy.** *Annals of internal medicine*
  Blumenfeld, Y. J., Hintz, S. R., Aziz, N., Barth, R. A., Spano, J. M., El-Sayed, Y. Y., Milla, C.
  2023
- **A novel fetal MRI lung volume nomogram stratified by estimated fetal weight**
  Gershnabel, S., Jayapal, P., Zalcman, M., Barth, R. A., Rubesova, E., Hintz, S., Zhang, J., Leonard, S. A., El-Sayed, Y. Y., Blumenfeld, Y. J.
  MOSBY-ELSEVIER.2023: S577
- **Perspective: Mandatory Radiology Education for Medical Students.** *Academic radiology*
  Farmakis, S. G., Chertoff, J. D., Straus, C. M., Barth, R. A.
  2022
- **William H. Northway, MD (1932-2022).** *Pediatric radiology*
  Vasanawala, S. S., Barth, R. A., Parker, B. R.
  2022
- **Starting a pediatric contrast ultrasound service: made simple!** *Pediatric radiology*
  Darge, K., Back, S. J., Barth, R. A., Johnson, A. M., Kwon, J. K., McCarville, M. B., Morgan, T. A., Ntoulia, A., Poznick, L., Shellikeri, S., Srinivasan, A. S., Cahill, A. M.
  2021
- **Contrast-enhanced ultrasound of blunt abdominal trauma in children.** *Pediatric radiology*
  Paltiel, H. J., Barth, R. A., Bruno, C., Chen, A. E., Deganello, A., Harkanyi, Z., Henry, M. K., Kljucevsek, D., Back, S. J.
  2021
- **Liver Fat Quantification by Ultrasound in Children: A Prospective Study.** *AJR. American journal of roentgenology*
  D'Hondt, A. n., Rubesova, E. n., Xie, H. n., Shamdasani, V. n., Barth, R. A.
  2021
- **Pediatric Radiologist Workforce Shortage: Action Steps to Resolve.** *Journal of the American College of Radiology : JACR*
  Farmakis, S. G., Chertoff, J. D., Barth, R. A.
  2021
- **Ultrasound shear wave elastography: does it add value to gray-scale ultrasound imaging in differentiating biliary atresia from other causes of neonatal jaundice?** *Pediatric radiology*
  Sandberg, J. K., Sun, Y. n., Ju, Z. n., Liu, S. n., Jiang, J. n., Koci, M. n., Rosenberg, J. n., Rubesova, E. n., Barth, R. A.
  2021
- **Clinical use of shear-wave elastography for detecting liver fibrosis in children and adolescents with cystic fibrosis.** *Pediatric radiology*
  Levitte, S. n., Lee, L. W., Isaacson, J. n., Zucker, E. J., Milla, C. n., Barth, R. A., Sellers, Z. M.

2021

- **Economically Motivated Patient Steerage: The Pediatric Perspective.** *Journal of the American College of Radiology : JACR*
  Heller, R. E., Milla, S. S., Barth, R. A.
  2020
- **Re: "2019 ACR Commission on Human Resources Workforce Survey".** *Journal of the American College of Radiology : JACR*
  Farmakis, S. G., Barth, R. n.
  2020
- **Predicting Pathology From Imaging in Children Undergoing Resection of Congenital Lung Lesions**
  Narayan, R. R., Abadilla, N., Greenberg, D. R., Sylvester, K. G., Hintz, S. R., Barth, R. A., Bruzoni, M.
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2019: 68–73
- **Normal values of the resistivity index of the pericallosal artery with and without compression of the anterior fontanelle.** *Pediatric radiology*
  Elmfors, A. F., Sandgren, T., Ford, K., Rosenberg, J., Ringertz, H., Barth, R. A., Rubesova, E.
  2019
- **Obstetric and neonatal outcomes in pregnancies complicated by fetal lung masses: does final histology matter?** *The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians*
  Anderson, J. N., Girsen, A. I., Hintz, S. R., El-Sayed, Y. Y., Davis, A. S., Barth, R. A., Halabi, S. n., Hazard, F. K., Sylvester, K. G., Bruzoni, M. n., Blumenfeld, Y. J.
  2019: 1–7
- **New Algorithm for the Integration of Ultrasound Into Cystic Fibrosis Liver Disease Screening.** *Journal of pediatric gastroenterology and nutrition*
  Sellers, Z. M., Lee, L. W., Barth, R. A., Milla, C. n.
  2019; 69 (4): 404–10
- **Obstetric and neonatal outcomes in pregnancies complicated by fetal lung masses: does final histology matter?**
  Anderson, J. N., Girsen, A. I., Hintz, S. R., El-Sayed, Y. Y., Davis, A. S., Barth, R. A., Halabi, S., Sylvester, K. G., Bruzoni, M., Blumenfeld, Y. J.
  MOSBY-ELSEVIER.2019: S151
- **Prospective Assessment of Ultrasound Shear Wave Elastography for Discriminating Biliary Atresia from other Causes of Neonatal Cholestasis.** *The Journal of pediatrics*
  Dillman, J. R., DiPaola, F. W., Smith, S. J., Barth, R. A., Asai, A. n., Lam, S. n., Campbell, K. M., Bezerra, J. A., Tiao, G. M., Trout, A. T.
  2019
- **Predicting Pathology From Imaging in Children Undergoing Resection of Congenital Lung Lesions.** *The Journal of surgical research*
  Narayan, R. R., Abadilla, N., Greenberg, D. R., Sylvester, K. G., Hintz, S. R., Barth, R. A., Bruzoni, M.
  2018; 236: 68–73
- **Utility of prenatal MRI in the evaluation and management of fetal ventriculomegaly** *JOURNAL OF PERINATOLOGY*
  Katz, J. A., Chock, V. Y., Davis, A. S., Blumenfeld, Y. J., Hahn, J. S., Barnes, P., Barth, R. A., Rubesova, E., Hintz, S. R.
  2018; 38 (11): 1444–52
- **Utility of prenatal MRI in the evaluation and management of fetal ventriculomegaly.** *Journal of perinatology : official journal of the California Perinatal Association*
  Katz, J. A., Chock, V. Y., Davis, A. S., Blumenfeld, Y. J., Hahn, J. S., Barnes, P., Barth, R. A., Rubesova, E., Hintz, S. R.
  2018
- **Normal values of the resistivity index of the pericallosal artery with and without compression of the anterior fontanelle** *PEDIATRIC RADIOLOGY*
  Elmfors, A., Sandgren, T., Ford, K., Rosenberg, J., Ringertz, H., Barth, R. A., Rubesova, E.
  2018; 49 (5): 646–51
- **Current controversies in prenatal diagnosis 3: Fetal MRI should be performed in all prenatally detected fetuses with a major structural abnormality** *PRENATAL DIAGNOSIS*
  Platt, L. D., Barth, R. A., Pugash, D.
  2018; 38 (3): 166–72

- **Imaging before 24 weeks gestation can predict neonatal respiratory morbidity in pregnancies complicated by fetal lung masses**
  Sherwin, K., Girsen, A. I., Halabi, S. S., Spiegel, A. M., Lee, C. J., Hintz, S. R., El-Sayed, Y. Y., Barth, R. A., Blumenfeld, Y. J.
  MOSBY-ELSEVIER.2018: S287–S288
- **Pediatric scrotal ultrasound: review and update**
  Alkhori, N. A., Barth, R. A.
  SPRINGER.2017: 1125–33
- **Impact of California Computed Tomography Dose Legislation: Survey of Radiologists** *JOURNAL OF MEDICAL IMAGING AND RADIATION SCIENCES*
  Zucker, E. J., Barth, R. A.
  2017; 48 (2): 144–50
- **Impact of California Computed Tomography Dose Legislation: Survey of Radiologists.** *Journal of medical imaging and radiation sciences*
  Zucker, E. J., Barth, R. A.
  2017; 48 (2): 144-150
- **Prediction of neonatal respiratory distress in pregnancies complicated by fetal lung masses.** *Prenatal diagnosis*
  Girsen, A. I., Hintz, S. R., Sammour, R., Naqvi, A., El-Sayed, Y. Y., Sherwin, K., Davis, A. S., Chock, V. Y., Barth, R. A., Rubesova, E., Sylvester, K. G., Chitkara, R., Blumenfeld, et al
  2017
- **Prenatally Diagnosed Cases of Binder Phenotype Complicated by Respiratory Distress in the Immediate Postnatal Period.** *Journal of ultrasound in medicine*
  Blumenfeld, Y. J., Davis, A. S., Hintz, S. R., Milan, K., Messner, A. H., Barth, R. A., Hudgins, L., Chueh, J., Homeyer, M., Bernstein, J. A., Enns, G., Atwal, P., Manning, et al
  2016; 35 (6): 1353-1358
- **Fetal suprarenal masses - assessing the complementary role of magnetic resonance and ultrasound for diagnosis.** *Pediatric radiology*
  Flanagan, S. M., Rubesova, E., Jaramillo, D., Barth, R. A.
  2016; 46 (2): 246-254
- **Added Value of Radiologist Consultation for Pediatric Ultrasound: Implementation and Survey Assessment.** *AJR. American journal of roentgenology*
  Zucker, E. J., Newman, B., Larson, D. B., Rubesova, E., Barth, R. A.
  2015; 205 (4): 822-826
- **Radiologist Compliance With California CT Dose Reporting Requirements: A Single-Center Review of Pediatric Chest CT** *AMERICAN JOURNAL OF ROENTGENOLOGY*
  Zucker, E. J., Larson, D. B., Newman, B., Barth, R. A.
  2015; 204 (4): 810-816
- **Fast pediatric 3D free-breathing abdominal dynamic contrast enhanced MRI with high spatiotemporal resolution.** *Journal of magnetic resonance imaging*
  Zhang, T., Cheng, J. Y., Potnick, A. G., Barth, R. A., Alley, M. T., Uecker, M., Lustig, M., Pauly, J. M., Vasanawala, S. S.
  2015; 41 (2): 460-473
- **CVR at the time of mid-trimester diagnosis of congenital lung lesions as a predictor of adverse neonatal outcomes**
  Sammour, R., Hintz, S., Davis, A., Riley, K., Barth, R., Rubesova, E., Sylvester, K., Girsen, A., Blumenfeld, Y.
  MOSBY-ELSEVIER.2015: S197
- **Clinical Correlation Needed: What Do Emergency Physicians Do After an Equivocal Ultrasound for Pediatric Acute Appendicitis?** *JOURNAL OF CLINICAL ULTRASOUND*
  Ramarajan, N., Krishnamoorthi, R., Gharahbaghian, L., Pirrotta, E., Barth, R. A., Wang, N. E.
  2014; 42 (7): 385-394
- **Advances in fetal imaging.** *American journal of perinatology*
  Rubesova, E., Barth, R. A.
  2014; 31 (7): 567-576

- **Fetal MRI correlates with postnatal CT angiogram assessment of pulmonary anatomy in tetralogy of Fallot with absent pulmonary valve.** *Congenital heart disease*
  Sun, H. Y., Boe, J., Rubesova, E., Barth, R. A., Tacy, T. A.
  2014; 9 (4): E105-9
- **Clinical performance of contrast enhanced abdominal pediatric MRI with fast combined parallel imaging compressed sensing reconstruction.** *Journal of magnetic resonance imaging : JMRI*
  Zhang, T., Chowdhury, S., Lustig, M., Barth, R. A., Alley, M. T., Grafendorfer, T., Calderon, P. D., Robb, F. J., Pauly, J. M., Vasanawala, S. S.
  2014; 40 (1): 13-25
- **Advances in Fetal Imaging** *AMERICAN JOURNAL OF PERINATOLOGY*
  Rubesova, E., Barth, R. A.
  2014; 31 (7): 567-576
- **Clinical performance of contrast enhanced abdominal pediatric MRI with fast combined parallel imaging compressed sensing reconstruction.** *Journal of magnetic resonance imaging : JMRI*
  Zhang, T., Chowdhury, S., Lustig, M., Barth, R. A., Alley, M. T., Grafendorfer, T., Calderon, P. D., Robb, F. J., Pauly, J. M., Vasanawala, S. S.
  2014; 40 (1): 13-25
- **Perforated appendicitis: an underappreciated mimic of intussusception on ultrasound.** *Pediatric radiology*
  Newman, B., Schmitz, M., Gawande, R., Vasanawala, S., Barth, R.
  2014; 44 (5): 535-541
- **Isolated umbilical vein varix with a poor outcome despite close fetal surveillance.** *Journal of ultrasound in medicine*
  Brookfield, K. F., Osmundson, S. S., Chetty, S., Chueh, J., Blumenfeld, Y. J., Barth, R. A., El-Sayed, Y. Y.
  2013; 32 (9): 1680-1682
- **Urachal duct carcinoma complicating pregnancy.** *Obstetrics and gynecology*
  McNally, L., Osmundson, S., Barth, R., Chueh, J.
  2013; 122 (2): 469-472
- **Conservatively Managed Fetal Goiter: An Alternative to in utero Therapy.** *Fetal diagnosis and therapy*
  Blumenfeld, Y. J., Davis, A., Milan, K., Chueh, J., Hudgins, L., Barth, R. A., Hintz, S. R.
  2013; 34 (3): 184-187
- **Imaging of fetal chest masses.** *Pediatric radiology*
  Barth, R. A.
  2012; 42: S62-73
- **Imaging of fetal chest masses** *PEDIATRIC RADIOLOGY*
  Barth, R. A.
  2012; 42: 62-73
- **Effectiveness of a Staged US and CT Protocol for the Diagnosis of Pediatric Appendicitis: Reducing Radiation Exposure in the Age of ALARA** *RADIOLOGY*
  Krishnamoorthi, R., Ramarajan, N., Wang, N. E., Newman, B., Rubesova, E., Mueller, C. M., Barth, R. A.
  2011; 259 (1): 231-239
- **MR imaging in cases of antenatal suspected appendicitis - a meta-analysis** *JOURNAL OF MATERNAL-FETAL & NEONATAL MEDICINE*
  Blumenfeld, Y. J., Wong, A. E., Jafari, A., Barth, R. A., El-Sayed, Y. Y.
  2011; 24 (3): 485-488
- **Improved Pediatric MR Imaging with Compressed Sensing** *RADIOLOGY*
  Vasanawala, S. S., Alley, M. T., Hargreaves, B. A., Barth, R. A., Pauly, J. M., Lustig, M.
  2010; 256 (2): 607-616
- **Standardizing resistive indices in healthy pediatric transplant recipients of adult-sized kidneys** *PEDIATRIC TRANSPLANTATION*
  Gholami, S., Sarwal, M. M., Naesens, M., Ringertz, H. G., Barth, R. A., Balise, R. R., Salvatierra, O.
  2010; 14 (1): 126-131

- **MR Assessment of Normal Fetal Lung Volumes - A literature Review** *American Journal of Roentgenology*
  Deshmukh S, Rubesova E, Barth RA
  2010; 194: 212-217
- **USING COMPUTERIZED PROVIDER ORDER ENTRY (CPOE) TO PROMOTE SUSTAINED OPTIMIZATION OF DIAGNOSTIC RADIOLOGIC SERVICE UTILIZATION** *39th Critical Care Congress of the Society-of-Critical-Care-Medicine*
  Pageler, N., Longhurst, C., Shin, A., Adams, E., Widen, E., Barth, R., Cornfield, D.
  LIPPINCOTT WILLIAMS & WILKINS.2009: A363–A363
- **An Interdisciplinary Initiative to Reduce Radiation Exposure: Evaluation of Appendicitis in a Pediatric Emergency Department With Clinical Assessment Supported by a Staged Ultrasound and Computed Tomography Pathway** *10th Annual Academic Emergency Medicine Consensus Conference/Annual Meeting of the Society-for-Academic-Emergency-Medicine*
  Ramarajan, N., Krishnamoorthi, R., Barth, R., Ghanouni, P., Mueller, C., Dannenburg, B., Wang, N. E.
  WILEY-BLACKWELL PUBLISHING, INC.2009: 1258–65
- **MR Voiding Cystography for Evaluation of Vesicoureteral Reflux** *AMERICAN JOURNAL OF ROENTGENOLOGY*
  Vasanawala, S. S., Kennedy, W. A., Ganguly, A., Fahrig, R., Rieke, V., Daniel, B., Barth, R. A.
  2009; 192 (5): W206-W211
- **Neonatal Malrotation with Midgut Volvulus Mimicking Duodenal Atresia** *AMERICAN JOURNAL OF ROENTGENOLOGY*
  Gilbertson-Dahdal, D. L., Dutta, S., Varich, L. J., Barth, R. A.
  2009; 192 (5): 1269-1271
- **Three-Dimensional MRI Volumetric Measurements of the Normal Fetal Colon** *AMERICAN JOURNAL OF ROENTGENOLOGY*
  Rubesova, E., Vance, C. J., Ringertz, H. G., Barth, R. A.
  2009; 192 (3): 761-765
- **Prenatal diagnosis of placenta accreta - Sonography or magnetic resonance imaging?** *JOURNAL OF ULTRASOUND IN MEDICINE*
  Dwyer, B. K., Belogolovkin, V., Tran, L., Rao, A., Carroll, I., Barth, R., Chitkara, U.
  2008; 27 (9): 1275-1281
- **Fetus in fetu: 11 fetoid forms in a single fetus - Review of the literature and imaging** *JOURNAL OF ULTRASOUND IN MEDICINE*
  Gerber, R. E., Kamaya, A., Miller, S. S., Cronin, D. M., Dwyer, B., Chueh, J., Conner, K. E., Barth, R. A.
  2008; 27 (9): 1381-1387
- **Prenatal sonography of congenital renal malformations** *AMERICAN JOURNAL OF ROENTGENOLOGY*
  Zhou, Q., Cardoza, J. D., Barth, R.
  1999; 173 (5): 1371-1376
- **Normal pediatric testis: Comparison of power Doppler and color Doppler US in the detection of blood flow** *RADIOLOGY*
  Barth, R. A., Shortliffe, L. D.
  1997; 204 (2): 389-393
- **Power Doppler imaging of focal lesions of the gastrointestinal tract: Comparison with conventional color Doppler imaging** *JOURNAL OF ULTRASOUND IN MEDICINE*
  CLAUTICEENGLE, T., Jeffrey, R. B., Li, K. C., Barth, R. A.
  1996; 15 (1): 63-66
- **ANATOMIC COMMUNICATIONS BETWEEN THE 3 RETROPERITONEAL SPACES - DETERMINATION BY CT-GUIDED INJECTIONS OF CONTRAST MATERIAL IN CADAVERS**
  MINDELL, H. J., MASTROMATTEO, J. F., DICKEY, K. W., STURTEVANT, N. V., SHUMAN, W. P., OLIVER, C. L., LEISTER, K. L., BARTH, R. A.
  AMER ROENTGEN RAY SOC.1995: 1173–78
- **1ST-TRIMESTER PRENATAL-DIAGNOSIS OF OSTEOGENESIS IMPERFECTA TYPE-II BY DNA ANALYSIS AND SONOGRAPHY** *PRENATAL DIAGNOSIS*
  DiMaio, M. S., Barth, R., Koprivnikar, K. E., SUSSMAN, B. L., Copel, J. A., Mahoney, M. J., Byers, P. H., Cohn, D. H.
  1993; 13 (7): 589-596
- **PERINATAL AND POSTNATAL CHEST SONOGRAPHY** *RADIOLOGIC CLINICS OF NORTH AMERICA*
  May, D. A., Barth, R. A., Yeager, S., NUSSBAUMBLASK, A., BULAS, D. I.

1993; 31 (3): 499-516