

Chair's Message



Dieter Enzmann, MD

Distinguished Professor of Radiology
Leo G. Rigler Chair
Executive Medical Director,
UCLA Health
Department of Radiological
Sciences
David Geffen School of Medicine
at UCLA


As we enter the late-COVID era, we can begin to rejuvenate a cornerstone of UCLA Radiology culture, collegiality. Re-engaging on an interpersonal level offers us the opportunity to not only reshape and strengthen our departmental culture for a hybrid work environment, but to also ensure faculty who joined us in the COVID-constrained era understand, enjoy and acclimate to it. We can also focus anew on our clinical, research and educational growth plans. While it's a great simplification of our vision and mission, I am making up a departmental "VisMis" statement: "To be the most creatively innovative radiology department in the nation by integrating AI enriched diagnostic imaging with forefront image-guided treatment."

This newsletter highlights some examples of continued creative innovation in diagnostic imaging: clinically useful free-breathing MR imaging of the liver, higher resolution of multiplanar MRI and diagnostically meaningful increased spatial resolution in the visualization of critical inner ear structures, which is particularly important in conditions difficult to diagnose clinically such as Meniere's disease. Our head and neck neuroradiology group sought leadership in this challenge because conventional middle and inner ear MR imaging has fallen short of providing a definitive diagnosis. These select examples represent only a small slice of much broader creative innovation thriving in the department.

In the VisMis statement, diagnostic imaging is only half the story. The other half is image-guided treatment (IgRx). The consistent, long-term departmental strategy is integrating both halves. Preceding and linked to IgRx is image-guided diagnosis (IgDx). IgDx is currently manifest primarily as tissue acquisition through biopsies. Nationwide, biopsy failure rates are quite high, but fortunately UCLA Radiology — in a clear counter trend — has a very high success rate in performing diagnostic biopsy procedures. Precision medicine relies heavily on variegated means of tissue analysis and UCLA Radiology seeks to be a leader in wide-ranging tissue acquisition techniques. We have formed a biopsy task force so this vital role in precision medicine can be scaled up. To further expand our biopsy repertoire, Dr. Ravi Srinivasa is showing creativity and innovation in developing percutaneous biliary endoscopy to increase the success rate of accurate tissue diagnosis in this anatomic location. This is an example of UCLA Radiology redesigning IgDx using percutaneous fiber optic image guidance in biopsy technique.

In conjunction with IgDx, we are continuing to grow IgRx by having it performed beyond the traditional IR subspecialties to include virtually all other subspecialty sections in the department. This broadens the scope and reach of IgRx applying its integration.

As the cover indicates, another direction of creative innovation is the development and application of robotics in IgRx. A near-term opportunity is robotic tele-angiography. Previous newsletters¹ have highlighted IgRx in the embolization of hypervascular tissues (benign prostatic hypertrophy [BPH] in Winter 2021 and Spring 2018; knee osteoarthritis in Summer 2019; and uterine fibroids²). These IgRx procedures can benefit from tele-angiographic robotics. Creative innovation in robotics encompasses not only further technical advances in robots, which are still in their early developmental stage, but importantly parallel advances in the design of proper clinical procedures to efficiently and effectively use robots in everyday clinical practice. Both technical and practical workflow improvements are facilitated by our motivated, talented faculty using the Translational Research Imaging Center facility to investigate safe, clinical uses. Our robotic initiatives accelerate the dissemination of IgRx into communities currently not afforded easy access to beneficial IgRx, helping to fulfill our community engagement missions.

We are all grateful to see the severe COVID era phasing out, thereby ushering in a resumption of creative innovation. UCLA Radiology is proud and fortunate enough to have resourceful faculty, staff and administration to deliver on the VisMis statement of being the most creatively innovative radiology department in the nation, spanning all of our clinical, research, training and community service missions. 

¹ <https://www.uclahealth.org/radiology/newsletter>

² https://www.uclahealth.org/radiology/workfiles/forpatients/CU201602_Fibroids.pdf