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The significant and continuous development of the various neuroimaging techniques (especially of MR imaging) has revolutionized the analysis and understanding of multiple congenital brain anomalies over the last decade. The number and complexity of recognized congenital brain anomalies have steadily increased and, based upon the detailed neuroimaging findings, a "pattern-recognition approach" has emerged. Multiple "new classifications" have been proposed based upon neuroimaging findings. Increasing image detail and including earlier imaging (fetal MR imaging), allowed us not only to refine or correct diagnosis but also to recognize different phenotypes that may exist within 1 group of malformations. Identification of various subgroups in so-called well-defined malformations or recognition of overlapping features between malformations that initially were believed to belong to different categories of malformations have guided genetic analysis and resulted in the identification of causative genes. Moreover, advanced neuroimaging techniques, eg, diffusion tensor imaging, allow us to better study and understand the inner neuro-architecture of the normally and abnormally developing brain. This information may again help to better categorize various brain malformations that may look similar on conventional imaging but may have different etiologies. Finally, correlating various functional neuroimaging techniques, eg, diffusion-tensor imaging with connectivity MR imaging or functional, event-related MR imaging (fMRI), helps to unravel the complex functional/anatomic relation between various, distant functional centers within a malformed brain.

For a better and complete understanding of brain malformations, a multi-disciplinary approach is mandatory, involving experts from neuro-embryology, neuro-genetics, neurochemistry, pediatric neurology and, last but not least, pediatric neuroradiology. The significance of an interdisciplinary approach is also reflected by the specialty training of the 2 guest editors of this Special Collection, who combine pediatric neuroradiology (T.H.) with pediatric neurology (A.P.).

We are thankful to Mauricio Castillo, Editor-in-Chief of the *American Journal of Neuroradiology* (*AJNR*) for inviting us to be guest editors for this *AJNR* Special Collection about congenital brain anomalies. It was a great pleasure for us to review hundreds of articles about this topic published in the *AJNR* over the last 22 years (1990–2011). We selected articles based upon their academic and clinical innovative value for the better identification and understanding of congenital brain anomalies; second, articles were selected based on the primary brain region affected by the malformation (supra- versus infratentorial). In addition, we also took care that we included significant articles that used and discussed the various anatomic and advanced neuroimaging techniques. Multiple malformations are covered, including midline malformations: disorders of proliferation, migration, or cortical architecture, and hamartous disorders. In addition, we also selected articles focusing on disruptive lesions. Multiple MR techniques are represented in our selection (conventional MR, $n = 23$, diffusion-weighted imaging and diffusion tensor imaging, $n = 5$, MR spectroscopy, $n = 3$, perfusion-weighted imaging, $n = 1$, and fetal MR, $n = 5$). We included a total of 37 articles (35 original and 2 review articles) from 5 different continents and 13 different countries. You will not be surprised that a significant number of the selected articles originate from 1 of the largest Northern American centers that focuses on brain malformation (Department of Neuroradiology, University of California, San Francisco).

We hope that this selection of articles might be of interest to all people who deal with brain malformations either on an occasional or frequent basis, but also that this collection further strengthens and stimulates an interdisciplinary effort to unravel the mystery of brain malformations.

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