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INSM1 expression and function illustrates conservation of underlying mechanisms of development and differentiation in neural and neuroendocrine epithelia

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INSM1 (IA-1) is a transcription factor expressed in embryonic and regenerating adult neural and neuroendocrine tissue. Between different tissues and among different species, a variety of tissue-level functions have been described for INSM1 and its orthologues. Despite the varied functions described, INSM1 is highly conserved in both amino-acid and nucleotide sequence, across organisms ranging from mammals to nematodes. Using olfactory epithelium (OE) as a model tissue, examination of INSM1 expression and function illustrates remarkable similarity in developmental events between OE and other neuroepithelia. Review of molecular and tissue functions of INSM1 orthologues in other systems raises the intriguing possibility that conservation of molecular developmental mechanisms extends to neuroendocrine tissues, as well.

Biography

Jason N. Rosenbaum studied medicine and received extensive research training at the Feinberg School of Medicine at Northwestern University in Chicago, Illinois. He completed his MD in 2011. He is currently a resident physician in the pathology department at the University of Wisconsin Hospital and Clinics in Madison, Wisconsin.

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