The idea that there was a specialized microenvironment or “niche” regulating hemopoietic stem cell function was first proposed by Ray Schofield over three decades ago. As interest in stem cell biology has exploded over the last 10 years, so too has the interest in the stem cell niche. This explosion of interest and, more recently, cellular-molecular-biochemical characterization of not only the hemopoietic stem cell niche but the niches for other stem cells was the driving force for putting together a volume of protocols for investigating stem cell niches. As always, it is not possible to collect all the different protocols in one volume; however, I have attempted to select a subset of representative protocols that hopefully will provide both a flavor of the field and hopefully stimulate new approaches and methodologies by those interested in the stem cell niche.

The protocols gathered here are faithful to the mission statement of the Methods in Molecular Biology series: They are well established and described in an easy-to-follow step-by-step fashion so as to be valuable for not only experts but also novices in the stem cell field. That goal is achieved because of the generosity of the contributors who have carefully described their protocols in this volume, and I am grateful for their efforts.

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