
Preface

Research in the matrix metalloproteinase field began with the demonstration by Gross and Lapière, in 1962, that resorbing tadpole tail expressed an enzyme that could degrade collagen gels. These humble beginnings have led us to the elucidation of around twenty distinct vertebrate MMPs, along with a variety of homologs from such diverse organisms as sea urchin, plants, nematode worm, and bacteria. This, coupled with four known specific inhibitors of MMPs, the TIMPs, gives a complex picture.

Part I of *Matrix Metalloproteinase Protocols* provides the reader with a selective overview of the MMP arena, and a chance to come to grips with where the field has been, where it is, and where it is going. I hope that this complements all of the methodology that comes later. Part II presents the reader with a diverse set of methods for the expression and purification of MMPs and TIMPs, bringing together the long and often hard-earned experience of a number of researchers. Part III allows the reader to detect MMPs and TIMPs at both the protein and mRNA level, whereas Part IV gives the ability to assay MMP and TIMP activities in a wide variety of circumstances.

For folks who are new to MMP research, I hope that this book will enable you to “hit the ground running,” acquiring both some background and many useful laboratory techniques in one easy volume. For the seasoned MMP-er, I hope that it will add some new methods to your old favorites, or help the new people in your laboratory get going.

I’d like to thank all of the authors for the time and effort they put in. The demands of writing a book chapter are not trivial, especially against the background of heavy research and teaching commitments, and I have been overwhelmed with the number of eminent and senior people in MMP research who have contributed. I’d also like to acknowledge Kim Hoather-Potter, my Production Editor at Humana Press, for keeping the whole thing on track. Kim’s hard work, interest, lively emails, and sense of humor helped make the difficult bits that much easier. Finally, I’d like to thank the Arthritis Research Campaign, UK, for keeping me in a job for long enough to make a commitment to editing this book; it’s been an experience.

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