

Contents

<i>Preface</i>	v
<i>Contributors</i>	ix
1 Studying the Pro-Migratory Effects of MIF	1
<i>Adrian Hoffmann, Leon Christian Zwißler, Omar El Bounkari, and Jürgen Bernhagen</i>	
2 In Vitro Approaches for Investigating the Influence of MIF on Leukocyte-Endothelial Cell Interactions Under Flow Conditions	19
<i>Michael J. Hickey</i>	
3 Using Intravital Microscopy to Study the Role of MIF in Leukocyte Trafficking In Vivo	27
<i>M. Ursula Norman and Michael J. Hickey</i>	
4 Analysis of Secreted MIF from Cultured Murine Bone Marrow-Derived Immune Cells	39
<i>Tali Lang</i>	
5 Measuring MIF in Biological Fluids	47
<i>Fabien B. Vincent and Tali Lang</i>	
6 Flow Cytometry Phenotyping of Bone Marrow-Derived Macrophages from Wild-Type and <i>Mif</i> ^{-/-} Mice	57
<i>Jacqueline K. Flynn, Nadia S. Deen, and James Harris</i>	
7 Genotyping Two Promoter Polymorphisms in the MIF Gene: A -794 CATT ₅₋₈ Microsatellite Repeat and a -173 G/C SNP	67
<i>Lin Leng, Edwin Siu, and Richard Bucala</i>	
8 Staining MIF in Cells for Confocal Microscopy	85
<i>James Harris</i>	
9 Microscopy Methods for Imaging MIF and Its Interaction Partners	93
<i>Kirstin D. Elgass, Sarah J. Creed, and Ina Rudloff</i>	
10 Co-Immunoprecipitation of Macrophage Migration Inhibitory Factor	115
<i>Jawad H. Abidi, James Harris, and Nadia S. Deen</i>	
11 Concurrent Immunohistochemical Localization and Western Blot Analysis of the MIF Receptor, CD74, in Formalin-Fixed, Paraffin-Embedded Tissue	123
<i>Amanda Graham and Warren B. Notnick</i>	
12 Methods to Determine the Effects of MIF on In Vitro Osteoclastogenesis Using Murine Bone Marrow-Derived Cells and Human Peripheral Blood Mononuclear Cells	135
<i>Ran Gu</i>	
13 Inducing and Inhibiting Autophagy to Investigate Its Interactions with MIF	147
<i>Nadia S. Deen, Jacinta P. Lee, and James Harris</i>	

14	Assays for Measuring the Role of MIF in NLRP3 Inflammasome Activation.....	159
	<i>Anita A. Pinar and James Harris</i>	
15	Assays for Inducing and Measuring Cell Death to Detect Macrophage Migration Inhibitory Factor (MIF) Release.....	173
	<i>Shahrzad Zamani, Eric F. Morand, and Jacqueline K. Flynn</i>	
16	Assessing the Role of MIF in <i>Plasmodium</i> spp. Infections Using Ex Vivo Models	185
	<i>Elizabeth H. Aitken</i>	
17	The Effect of Macrophage Migration Inhibitory Factor on Intestinal Permeability: FITC-Dextran Serum Measurement and Transmission Electron Microscopy	193
	<i>Milica Vujičić, Sanja Despotović, Tamara Saksida, and Ivana Stojanović</i>	
18	Investigating MIF in Mouse Models of Severe Corticosteroid-Resistant Neutrophilic Asthma	203
	<i>Venkata Sita Rama Raju Allam and Maria B. Sukkar</i>	
19	Investigating MIF in Mouse Model of Gout	213
	<i>Izabela Galvão, Allysson Cramer, and Flavio Almeida Amaral</i>	
20	5' and 3' RACE Method to Obtain Full-Length 5' and 3' Ends of <i>Ciona robusta</i> Macrophage Migration Inhibitory Factors <i>Mif1</i> and <i>Mif2</i> cDNA	223
	<i>Aiti Vizzini</i>	
21	Purification of Antibodies Against <i>Entamoeba histolytica</i> MIF and Their Use in Analyzing Human and Mouse Samples	237
	<i>Laura Farr, Koji Watanabe, and Shannon Moonah</i>	
22	Studying Plant MIF/D-DT-Like Genes and Proteins (MDLs)	249
	<i>Dzmitry Sinitski, Katrin Gruner, Jürgen Bernhagen, and Ralph Panstruga</i>	
	<i>Index</i>	263