

PREFACE

The studies presented in this thesis have been carried out under the direction of Professor Kazuhiko Imaizumi at the Laboratory of Physiological Sciences, Faculty of Human Sciences, Waseda University during 2005-2008. The thesis is concerned with muscle CD31-negative CD45-negative (CD31(-) CD45(-)) side population (SP) cells promote muscle regeneration by stimulating proliferation and migration of myoblasts. I thank Professor Kazuhiko Imaizumi for his precious comments, continuous encouragements and valuable discussions.

I wish to express my grateful gratitude to Dr. Shin'ichi Takeda (National Institute of Neuroscience, NCNP, Kodaira, Tokyo). His kind guidance, precious comments, continues encouragements and valuable discussions are deeply appreciated. I also wish to express my sincere thanks to Dr. Yuko Miyagoe-Suzuki (National Institute of Neuroscience, NCNP, Kodaira, Tokyo) for her pertinent guidance, many suggestions and valuable stimulating discussion.

I further thank to Dr. Akiyoshi Uezumi (Institute for Comprehensive Medical Science, Fujita Health University, Toyoake, Aichi), Dr. Erica Yada, Mr. Satoru Masuda and Mrs. Chika Harano (National Institute of Neuroscience, NCNP, Kodaira, Tokyo), Dr. So-ichiro Fukada (Graduate School of Pharmaceutical Sciences, Osaka University, Suita, Osaka), and Dr. Kazuhiro Fukushima (Nurology and Rheumatology, Shinshu University School of Medicine, Matsumoto, Nagano) for their continuous encouragements and technical supports throughout the present study.

Finally, I thank my family for their affectionate encouragements throughout this study.

Norio Motohashi

Tokorozawa
May 28, 2008