

RAT JUGULAR VEIN  
AND CAROTID ARTERY  
CATHETERIZATION FOR ACUTE  
SURVIVAL STUDIES

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AND CAROTID ARTERY  
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A PRACTICAL GUIDE

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FOREWORD BY JOHN H.K. LIU



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## CATHETERIZATION

An implant procedure in which a small tube is inserted into a body cavity, duct, or vessel for the purpose of fluid administration or withdrawal ~ *AALAS Reference Directory*

## FOREWORD

In biomedical teaching and research, catheterizations of the jugular vein and the carotid artery have been used to access the cardiovascular system in various animal species. Such surgical procedures are technically challenging in rodents because of the small scale involved. There are not many alternatives if the rodent's survival and easy post-operative handling are required. While rodents are becoming predominant research animals, reliable execution of these procedures is essential for many endeavors in pre-clinical research and product development. This practical guide should help scientists and technicians master the procedures in rats and thus confidently move forward to data collection.

For those who have been fortunate to work with Angela Heiser in the laboratory, we have long witnessed how dedicated to the profession a researcher can be. Angie enjoys her work immensely. Her laboratory records are always focused, highly organized, and simply deduced but with in-depth knowledge. In addition to the sciences, she can add stunning, artistic impression to the content. No wonder I have seen so many superb presentations by Angie. Publication of this practical guide certainly will be a milestone.

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