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Many molecular components and structures of living animal or human organs in biological and medical fields are dynamically changing for their necessary functions among lots of extracellular or intracellular body fluid. The importance of cryofixation for morphology and immunohistochemistry, as already described in this book, is based on the way how to change the water contents into tiny vitreous ice crystals. Our ultimate goal as morphological scientists is to obtain the real histology and pathology of living animal organs including humans and also immunohistochemical localizations of functional molecules in their cells and tissues. The IVCT presented in this review book is a first step to instantly stop normal blood circulation flowing into various organs of living animals, which can be usually followed with various

light and electron microscopic procedures. Therefore, it is now possible to directly make morphological and immunohistochemical analyses of living animal organs by our IVCT without major stresses of ischemia and anoxia. We have already reported various new findings of cells and tissues, which had never been demonstrated by the other conventional preparation methods. As the IVCT can reveal the functional morphology closer to “living animal organ” states, it will surely open the door for a new morphological field of “living animal morphology” during the twenty-first century, which would be compatible with dynamic images revealed by the recent live-imaging method. The more significant time will come soon, when we could bring about “morphology renaissance” of living animal or human organs.

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