

[特別講義]

Transfer of Basic Science to Patient Care: Examples  
from the Clinical Investigations and Patient Care Branch,  
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The U.S. National Institutes of Health (NIH) is composed of 14 categorical institutes with a focus on specific organ systems and disease processes. Each institute includes basic and clinical research components, and a large part of an institute's mandate from the U.S. government is the application of basic science advances to clinical patient care. The Clinical Investigations and Patient Care Branch (CIPCB) of the National Institute of Dental Research (NIDR) is the organizational group within the NIDR intramural program primarily charged with basic science transfer to oral diseases. The CIPCB thus provides a reasonable model for viewing the process of science transfer/clinical application at NIH. The principle clinical focus in the CIPCB is salivary gland hypofunction. Saliva provides essential protective and alimentary functions in the oral cavity and diminished saliva production (such as following irradiation for head and neck cancer; with Sjögren's syndrome) leads to pleiotropic oral morbidities (e. g. rampant caries, candidiasis, dysphagia). The CIPCB has worked to understand the basic mechanism(s) by which saliva is produced in order to better diagnose and manage salivary gland disorders. Specific examples of how mechanistic basic science progress had led to clinically-relevant advances will be presented.