Research outputs:

Exploring extracellular matrix degradomes by TMT-TAILS N-terminomics
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2019 › Research › peer-review

Protease activity profiling of snake venoms using high-throughput peptide screening
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review

A SYSTEM-WIDE STUDY OF THE PROTEOME AND PROTEASE CLEAVAGE PRODUCTS IN CHRONIC SKIN ULCERS
Research output: Contribution to journal › Conference abstract in journal – Annual report year: 2018 › Research › peer-review

Body Fluid Degradomics and Characterization of Basic N-Terminome
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Comparative degradomics of porcine and human wound exudates unravels biomarker candidates for assessment of wound healing progression in trauma patients
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Large-Scale Quantitative Proteomics Identifies the Ubiquitin Ligase Nedd4-1 as an Essential Regulator of Liver Regeneration
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Multidimensional analysis of protease substrates and their cellular origins in mixed secretomes from multiple cell types
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Targeted degradomics in protein terminomics and protease substrate discovery
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Time-resolved analysis of matrix metalloproteinase substrates in complex samples
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Autocrine and paracrine regulation of keratinocyte proliferation through a novel nrf2-il-36γ pathway
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review
TAILS N-Terminomics and Proteomics Show Protein Degradation Dominates over Proteolytic Processing by Cathepsins in Pancreatic Tumors
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Active site specificity profiling of the matrix metalloproteinase family: Proteomic identification of 4300 cleavage sites by nine MMPs explored with structural and synthetic peptide cleavage analyses
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Caspase-1 activity is required for UVB-induced apoptosis of human keratinocytes
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Identification of protease substrates in complex proteomes by iTRAQ-TAILS on a thermo Q exactive instrument
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

In vivo assessment of protease dynamics in cutaneous wound healing by degradomics analysis of porcine wound exudates
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Matrix metalloproteinase 10 degradomics in keratinocytes and epidermal tissue identifies bioactive substrates with pleiotropic functions
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Matrix metalloproteinases in impaired wound healing
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

MMPs: From Genomics to Degradomics
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Monitoring matrix metalloproteinase activity at the epidermal-dermal interface by SILAC-iTRAQ-TAILS
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Proteomic approaches to uncover MMP function
Research output: Contribution to journal › Review – Annual report year: 2017 › Research › peer-review

Macrophage matrix metalloproteinase-12 dampens inflammation and neutrophil influx in arthritis
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Time-resolved analysis of the matrix metalloproteinase 10 substrate degradome
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

The substrate degradome of meprin metalloproteases reveals an unexpected proteolytic link between meprin β and ADAM10
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

CLIPPER: An add-on to the Trans-Proteomic Pipeline for the automated analysis of TAILS N-terminomics data
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Identification of UV-protective activators of nuclear factor erythroid-derived 2-related factor 2 (Nrf2) by combining a chemical library screen with computer-based virtual screening
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review
Characterization of the prime and non-prime active site specificities of proteases by proteome-derived peptide libraries and tandem mass spectrometry
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Factor Xa subsite mapping by proteome-derived peptide libraries improved using WebPICS, a resource for proteomic identification of cleavage sites
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Identifying and quantifying proteolytic events and the natural N terminome by terminal amine isotopic labeling of substrates
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Metalloprotease meprin β generates nontoxic N-terminal amyloid precursor protein fragments in vivo
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Nematotoxicity of Marasmius oreades Agglutinin (MOA) depends on glycolipid binding and cysteine protease activity
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review

Protease specificity profiling by tandem mass spectrometry using proteome-derived peptide libraries
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Proteomic analyses reveal an acidic prime side specificity for the astacin metalloprotease family reflected by physiological substrates
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Targeting Tumor Hypoxia: Suppression of Breast Tumor Growth and Metastasis by Novel Carbonic Anhydrase IX Inhibitors
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Wound degradomics – current status and future perspectives
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Analysis of the Degradome with the CLIP-CHIP™ Microarray
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

A statistics-based platform for quantitative N-terminome analysis and identification of protease cleavage products
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Isotopic labeling of terminal amines in complex samples identifies protein N-termini and protease cleavage products
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Multiplex N-terminome Analysis of MMP-2 and MMP-9 Substrate Degradomes by ITRAQ-TAILS Quantitative Proteomics
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Novel matrix metalloproteinase inhibitor [18F]marimastat- arytrifluoroborate as a probe for in vivo positron emission tomography imaging in cancer
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Nrf2 A central regulator of UV protection in the epidermis
Research output: Contribution to journal › Editorial – Annual report year: 2017 › Research › peer-review
Nrf2 establishes a glutathione-mediated gradient of UVB cytoprotection in the epidermis
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Proteomic techniques and activity-based probes for the system-wide study of proteolysis
Research output: Contribution to journal › Review – Annual report year: 2017 › Research › peer-review

Epithelial-Mesenchymal Transition (EMT) Is Not Sufficient for Spontaneous Murine Breast Cancer Metastasis
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Identification of protease substrates by mass spectrometry approaches-2
Research output: Chapter in Book/Report/Conference proceeding › Book chapter – Annual report year: 2017 › Research › peer-review

Impaired liver regeneration in Nrf2 knockout mice: Role of ROS-mediated insulin/IGF-1 resistance
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Toward $^{18}$F-labeled aryltrifluoroborate radiotracers: In vivo positron emission tomography imaging of stable aryltrifluoroborate clearance in mice
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Electrophilic chemicals but not UV irradiation or reactive oxygen species activate Nrf2 in keratinocytes in vitro and in vivo
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Protease research in the era of systems biology
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Roles and mechanisms of action of the Nrf2 transcription factor in skin morphogenesis, wound repair and skin cancer
Research output: Contribution to journal › Comment/debate – Annual report year: 2017 › Research › peer-review

Nrf transcription factors in keratinocytes are essential for skin tumor prevention but not for wound healing
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Reactive oxygen species and their detoxification in healing skin wounds
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Fibroblast growth factors in epithelial repair and cytoprotection
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Meeting report: Growth factors in development, repair and disease
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Nrf2 transcription factor, a novel target of keratinocyte growth factor action which regulates gene expression and inflammation in the healing skin wound
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review

Projects:

Structural and functional studies of MARCH5
Project: PhD
Wound exudate degradomics in normal and impaired healing  
Project: PhD

pH-sensing Monoclonal antibodies against snake toxins  
Project: PhD

Immune stealthing of bio-therapeutics  
Project: PhD

Structural and cellular studies of MARCH5 and larger complexes  
Project: PhD

Functional modification of matrix metalloproteinasenase (MMP) 9 activity by glycosylation  
Project: PhD

Interconnected Activities and Functions of Matrix Metalloproteinases at the Wound Edge  
Project: PhD

Characterization of novel non-invasive biomarkers for extracellular matrix remodeling in fibrosis and discovery of new targets for biomarker development  
Project: PhD

Keratin2Protein: Novel approach to protein recovery from slaughterhouse waste through microbial conversion  
Project: PhD

Novel Biomarkers of changes in muscle mass or muscle pathology  
Project: PhD