

Curriculum Vitae

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I. PERSONAL INFORMATION

Date of Birth: 1977/08/22

Gender: Male

Nationality: Taiwan

Current Position: PostDoc in Prof. Dr. Henning Urlaub's Lab
Max Planck Institute for Biophysical Chemistry, Germany.

II. EDUCATIONAL BACKGROUND

02/07 – 08/10 PhD of Biology Faculty, Georg-August-Universität Göttingen, Germany

Thesis: Mass Spectrometric Analyses of Post-Translationally Modified Proteins.

09/99 - 06/01 Master of Science Department of Chemistry, National ChungHsing University, Taiwan

Major: Analytical Chemistry

Thesis: Study of the Renal Function: Utilizing HPLC/MS to Analyze Creatine, Creatinine and Guanidineacetic acid in Biofluids. Develop a Sensitive Analytical Technique to Monitor Trace Ether in Water.

09/95 - 06/99 Bachelor of Science
Department of Chemistry, National ChungHsing University, Taiwan

III. Professional Experience

08/10 – Now PostDoc
Bioanalytical Mass Spectrometry Group, Max Planck Institute for Biophysical Chemistry, Germany

02/07 – 08/10 PhD Student
Bioanalytical Mass Spectrometry Group, Max Planck Institute for Biophysical Chemistry, Germany

07/01 - 01/07 Research Assistant / Mass Spectrometry Laboratory Specialist
Core Facilities for Proteomics Research, Institute of Biological Chemistry, Academia Sinica, Taiwan

09/99 - 06/01 Research Assistant
Department of Chemistry, National ChungHsing University, Taiwan

IV. PUBLICATIONS

1. **Hsiao, H. H.**, Urlaub, H. "Efficient Enrichment of Intact Phosphoproteins prior to Mass Spectrometric Analysis." *IN PREPARATION*.

2. Oellerich T., Bremes V., Neumann K., Bohnenberger H., Dittmann K., Hsiao H. H., Engelke M., Schnyder T., Batista F., Urlaub H., Wienands J. "The B-cell antigen receptor signals through a preformed transducer module of SLP65 and CIN85" (2011) *EMBO Journal*, Accept (**Impact Factor: 10.124**)
3. Kramer K., Hummel P., Hsiao H. H., Luo X., Wahl M., Urlaub H. "Mass-spectrometric analysis of proteins cross-linked to 4-thio-uracil- and 5-bromo-uracil-substituted RNA." (2011) *International Journal of Mass Spectrometry*, In Press (**Impact Factor: 2.009**)
4. Krumova P., Meulmeester E., Garrido M., Tirard M., Hsiao H. H., Bossis G., Urlaub H., Zweckstetter M., Kügler S., Melchior F., Bähr M., Weishaupt J. H. (2011) "Sumoylation regulates α -synuclein aggregation and toxicity." *Journal of Cell Biology*, 194 (1), 49-60. (**Impact Factor: 9.921**)
5. Bohnenberger, H., Oellerich, T., Engelke, M., Hsiao, H. H., Urlaub, H., Wienands, J. (2011) "Complex phosphorylation dynamics control the composition of the Syk interactome in B cells." *European Journal of Immunology* 41 (6), 1550-62. (**Impact Factor: 4.942**)
6. Yeh Y. Y., Shah K. H., Chou C. C., Hsiao H. H., Wrasman K. M., Stephan J. S., Stamatakis D., Khoo K. H., Herman P. K. (2011) "The identification and analysis of phosphorylation sites on the Atg1 protein kinase." *Autophagy* 7 (7), 716-726. (**Impact Factor: 6.643**)
7. Rüdél S., Wang Y., Lenobel R., Körner R., Hsiao H. H., Urlaub H., Patel D., Meister G. (2011) "Phosphorylation of human Argonaute proteins affects small RNA binding." *NUCLEIC ACIDS RESEARCH* 39 (6), 2330-43. (**Impact Factor: 7.836**)
8. Beller M., Bulankina A. V., Hsiao H. H., Urlaub H., Jäckle H., Kühnlein R. P. "PERILIPIN-dependent control of lipid droplet structure and fat storage in Drosophila." *Cell Metabolism* 12 (5), 521-32. (**Impact Factor: 18.207**)
9. Ghalei, H., Hsiao, H.H., Urlaub, H., Wahl, M.C., Watkins NJ. (2010) "A novel Nop5-sRNA interaction that is required for efficient archaeal box C/D sRNP formation." *RNA* 16 (12), 2341-8. (**Impact Factor: 6.051**)
10. Hsiao, H. H., Urlaub, H. (2010) "Pseudo-Neutral-Loss Scan for Selective Detection of Phosphopeptides and N-Glycopeptides using Liquid Chromatography Coupled with a Hybrid Linear Ion-Trap / Orbitrap Mass Spectrometer." *PROTEOMICS* 10 (21), 3916-21. (**Impact Factor: 4.815**)
11. Wu, H. J., Seib, K. L., Srikhanta, Y. N., Edwards, J., Kidd, S. P., Maguire, T. L., Hamilton, A., Pan, K. T., Hsiao, H. H., Yao, C. W., Grimmond, S. M., Apicella, M. A., McEwan, A. G., Wang, A. H., and Jennings, M. P. (2010) "Manganese regulation of virulence factors and oxidative stress resistance in *Neisseria gonorrhoeae*." *JOURNAL OF PROTEOMICS* 73 (5), 899-916. (**Impact Factor: 5.074**)
12. Schneider, M., Hsiao, H. H., Will, C. L., Giet, R., Urlaub, H., and Luhrmann, R. (2010) "Human PRP4 kinase is required for stable tri-snRNP association during spliceosomal B complex formation." *NATURE STRUCTURAL & MOLECULAR BIOLOGY* 17 (2), 216-221. (**Impact Factor: 13.685**)
13. Kuhn-Holsken, E., Lenz, C., Dickmanns, A., Hsiao, H. H., Richter, F. M., Kastner, B., Ficner, R., and Urlaub, H. (2010) "Mapping the binding site of snurportin 1 on native U1 snRNP by cross-linking and mass spectrometry." *NUCLEIC ACIDS RESEARCH* 38 (16), 5581-93. (**Impact Factor: 7.836**)
14. Yu, S. Y., Wu, S. W., Hsiao, H. H., and Khoo, K. H. (2009) "Enabling techniques and strategic

- workflow for sulfoglycomics based on mass spectrometry mapping and sequencing of permethylated sulfated glycans." *GLYCOBIOLOGY* 19 (10), 1136-1149. (Impact Factor: 3.791)
15. Martin Richter, F., Hsiao, H. H., Plessmann, U., and Urlaub, H. (2009) "Enrichment of protein-RNA crosslinks from crude UV-irradiated mixtures for MS analysis by on-line chromatography using titanium dioxide columns." *BIOPOLYMERS* 91 (4), 297-309. (Impact Factor: 2.572)
 16. Hsiao, H. H., Meulmeester, E., Frank, B. T., Melchior, F., and Urlaub, H. (2009) "'ChopNSpice," a mass spectrometric approach that allows identification of endogenous small ubiquitin-like modifier-conjugated peptides." *MOLECULAR & CELLULAR PROTEOMICS* 8 (12), 2664-2675. (Impact Factor: 8.354)
 17. Oellerich, T., Gronborg, M., Neumann, K., Hsiao, H. H., Urlaub, H., and Wienands, J. (2009) "SLP-65 phosphorylation dynamics reveals a functional basis for signal integration by receptor-proximal adaptor proteins." *MOLECULAR & CELLULAR PROTEOMICS* 8 (7), 1738-1750. (Impact Factor: 8.354)
 18. Luo, X., Hsiao, H. H., Bubunencko, M., Weber, G., Court, D. L., Gottesman, M. E., Urlaub, H., and Wahl, M. C. (2008) "Structural and functional analysis of the E. coli NusB-S10 transcription antitermination complex." *MOLECULAR CELL* 32 (6), 791-802. (Impact Factor: 14.194)
 19. Meulmeester, E., Kunze, M., Hsiao, H. H., Urlaub, H., and Melchior, F. (2008) "Mechanism and consequences for paralog-specific sumoylation of ubiquitin-specific protease 25." *MOLECULAR CELL* 30 (5), 610-619. (Impact Factor: 14.194)
 20. Hsiao, H. H., Hsieh, H. Y., Chou, C. C., Lin, S. Y., Wang, A. H., and Khoo, K. H. (2007) "Concerted experimental approach for sequential mapping of peptides and phosphopeptides using C18-functionalized magnetic nanoparticles." *JOURNAL OF PROTEOME RESEARCH* 6 (4), 1313-1324. (Impact Factor: 5.460)
 21. Chen, Y. Y., Lin, S. Y., Yeh, Y. Y., Hsiao, H. H., Wu, C. Y., Chen, S. T., and Wang, A. H. (2005) "A modified protein precipitation procedure for efficient removal of albumin from serum." *ELECTROPHORESIS* 26 (11), 2117-2127. (Impact Factor: 3.569)
 22. Tsai, J. M., Wang, H. C., Leu, J. H., Hsiao, H. H., Wang, A. H., Kou, G. H., and Lo, C. F. (2004) "Genomic and proteomic analysis of thirty-nine structural proteins of shrimp white spot syndrome virus." *JOURNAL OF VIROLOGY* 78 (20), 11360-11370. (Impact Factor: 5.189)
 23. Chung, T. L., Hsiao, H. H., Yeh, Y. Y., Shia, H. L., Chen, Y. L., Liang, P. H., Wang, A. H., Khoo, K. H., and Shoei-Lung Li, S. (2004) "In vitro modification of human centromere protein CENP-C fragments by small ubiquitin-like modifier (SUMO) protein: definitive identification of the modification sites by tandem mass spectrometry analysis of the isopeptides." *JOURNAL OF BIOLOGICAL CHEMISTRY* 279 (38), 39653-39662. (Equal contribution as the first author, Impact Factor: 5.328)
 24. Lee, C. L., Hsiao, H. H., Lin, C. W., Wu, S. P., Huang, S. Y., Wu, C. Y., Wang, A. H., and Khoo, K. H. (2003) "Strategic shotgun proteomics approach for efficient construction of an expression map of targeted protein families in hepatoma cell lines." *PROTEOMICS* 3 (12), 2472-2486. (Impact Factor: 4.815)
 25. 蕭鶴軒, 李茂榮. (2000) "吹氣捕捉萃取技術." *科儀新知*, 第 119 期, 第 22 卷, 第 3 期, 83-91

V. POSTER PRESENTATIONS

1. **Hsiao, H. H.**, Hsieh H. Y., Urlaub, H. "Selective Exploration of Protein Phosphorylation, Glycosylation and Disulfide Bridges by Mass-Pair Detection." 59th ASMS Conference, June 5- 9, 2010, Denver, Colorado.
2. **Hsiao, H. H.**, Urlaub, H. "Efficient enrichment of intact phosphoproteins prior to mass spectrometric analysis." 58th ASMS Conference, May 23- 27, 2010, Salt Lake City, Utah.
3. **Hsiao, H. H.**, Meulmeester, E., Frank, B. T. C., Melchior, F., Urlaub, H. "Mapping endogenous SUMO sites: A novel approach using ESI-MS and modified database search with common search engines." 57th ASMS Conference, May 31- June 4, 2009, Philadelphia, Pennsylvania.
4. Richter, F., **Hsiao, H. H.**, Paul, N., Luo, X., Agafonov, D., Lührmann, R., Wahl, M., Zavolan, M., Urlaub, H. "An Efficient Strategy for the Identification of UV-induced Protein-RNA Crosslinks by ESI Mass Spectrometry." 57th ASMS Conference, May 31- June 4, 2009, Philadelphia, Pennsylvania.
5. **Hsiao, H. H.**, Gronborg, M., Lührmann, R., Urlaub, H. "A high-throughput method for phosphopeptide enrichment of spliceosomal proteins." 56th ASMS Conference, June 1- 5, 2008, Denver, Colorado.
6. **Hsiao, H. H.**, Hsieh, H. Y., Lin, S. Y., Chou, C.C., Wang, A.H., Khoo, K. H. "Highly specific enrichment of phosphorylated peptides from peptides mixtures utilizing magnetic nanoparticles." 54th ASMS Conference, May 28- Jun 1, 2006, Seattle, Washington.
7. Lin S. Y., **Hsiao, H. H.**, Chen, Y. Y., Fan, Y. Y., Lin, C. W., Yeh, Y. Y., Hsieh, H. Y., Chen, S. T., Khoo, K. H., Wang, A. H. "Proteomic and Glycomic Analyses of Serum and Ascitic Fluids in Relation to Colonic Tumor Progression in Inbred Mouse Model." HUPO 4th Annual World Congress, Aug 29-Sep 1, 2005, Munich, Germany.
8. Wu, H. J., Pan, K. T., **Hsiao, H. H.**, Chen, Y. H., Jennings, M. P., McEwan, A. G., Yao, C. W., Wang, A. H. "A Proteomic Study of Manganese Regulation of Gene Expression in *Neisseria Gonorrhoeae*" HUPO 4th Annual World Congress, Aug 29-Sep 1, 2005, Munich, Germany.
9. **Hsiao, H. H.**, Lin, S. Y., Chen, Y. Y., Fan, Y. Y., Lin, C. W., Yeh, Y. Y., Hsieh, H. Y., Chen, S. T., Khoo, K. H., Wang, A. H. "Concerted Serum Proteomics and Glycomics Mapping of Colonic Tumor Progression in Inbred Mouse Mode." 53th ASMS Conference, Jun 5-9, 2005, San Antonio, Texas.
10. Lin, S. Y., Lee, C. L., **Hsiao, H. H.**, Shih, R. Y., Yeh, Y. Y., Wu, C. Y., Liao, C. L., Wang, A. H. "Proteomic Analysis of Human Plasma/Serum." HUPO 2nd Annual World Congress, Oct 8-11, 2003, Montreal, Canada.
11. Lee, C. L., Shyu, W. T., Lin, C. Y., **Hsiao, H. H.**, Chen, C. L., Wu, C. Y., Wu, Y. T., Khoo, K. H., Wang, A. H. "Strategic Experimental Approach Towards Establishing Model Hepatoma Cell Lines for the Global Human Liver Proteome Initiatives" HUPO 1st Annual World Congress, Nov 21-24, 2002, Versailles, France.
12. Kuo, C. W., **Hsiao, H. H.**, Shyu, W. T., Chen, C. M., Lee, Y. C., Chu, S. T., Khoo, K. H. "Proteomic and Glycomic Analyses of Mouse Uterine Luminal Fluid." HUPO 1st Annual World Congress, Nov 21-24, 2002, Versailles, France.
13. **Hsiao, H. H.**, Lin, H. J., Yeh, Y. Y., Wang, A. H., Khoo, K. H. "Mass Spectrometry Based Strategies

for Analysis of Phosphoprotein and Identification of Phosphorylation Site.” 3rd Autumn Symposium of Taiwan Society for Biochemistry and Molecular Biology, Tainan, Nov 14-16, 2003.

14. **Hsiao, H. H.**, Lee, M. R. “Analysis of Creatine and Creatinine in Serum and Urine by LC/MS.” 2000 Annual Meeting of Chemical Society Located in Taipei.
15. **Hsiao, H. H.**, Lee, M. R. “Study of Quinolinic Acid by Mass Spectrometry.” 8th Analytical Chemistry Techniques Conference Located in Hsinchu.
16. **Hsiao, H. H.**, Lee, M. R. “Solid Phase Micro-Extraction Coupled with Cryo-Trap GC/MS for the Analysis of Methyl-t-Butyl Ether (MTBE) in Water.” 1999 Annual Meeting of Chemical Society Located in Taipei.

VI. CERTIFICATE OF MASS SPECTROMETRY

1. Successfully completed a QTOF Ultima MALDI Operator Training Course at Academia Sinica, Taiwan, September 16-20, 2002.
2. For Successful Completion of 4700 Proteomics Analyzer Training Course, October 21-25, 2002.
3. Participated in and Successfully Completed for Satisfactory Completion of the QSTAR XL training, Taipei, Taiwan, December 16-18, 2003 .

VII. REFERENCES

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