

Name, Degree: David R Goodlett, Ph.D.
Position: Professor
Department: Pharmaceutical Sciences
Affiliation: University of Maryland
Office: PHN 623
E-mail: david.goodlett@gmail.com
Homepage: goodlettlab.org & <https://twitter.com/goodlettlab1>

Education

1978-1982	BS	Auburn University
1982-1988	MS	Auburn University
1985-1991	PhD	North Carolina State University
1991-1993	postdoc	Pacific Northwest National Laboratory

Professional Experience

1993-1995	Research Scientist	Johnson & Johnson
1995-1997	Research Scientist	Bristol-Myers Squibb
1997-2000	Research Scientist	University of Washington
2000-2003	Director Proteomics	Institute for Systems Biology
2004-2012	Professor	University of Washington
2011-	Founder	Deurion, LLC
2013-present	Professor	University of Maryland
2015-	Founder	Pataigin, LLC

Academic Society

1983-present	member	American Chemical Society
1988-present	member	American Society for Mass Spectrometry

Publications

234. Leung LM, Fondrie WE, Doi Y, Johnson JK, Strickland DK, Ernst RK, Goodlett DR. Identification of the ESKAPE pathogens by mass spectrometric analysis of microbial membrane glycolipids. *Sci Rep.* 2017 Jul 25;7(1):6403.

233. Khan MM, Tran BQ, Jang YJ, Park SH, Fondrie WE, Chowdhury K, Yoon SH, Goodlett DR, Chae SW, Chae HJ, Seo SY, Goo YA. Assessment of the Therapeutic Potential of Persimmon Leaf Extract on Prediabetic Subjects. *Mol Cells.* 2017 Jul 6. [Epub ahead of print].

232. Bhosale SD, Moulder R, Kouvonen P, Lahesmaa R, Goodlett DR. Mass Spectrometry-Based Serum Proteomics for Biomarker Discovery and Validation. *Methods Mol Biol.* 2017;1619:451-466.

231. Lund RJ, Huhtinen K, Salmi J, Rantala J, Nguyen EV, Moulder R, Goodlett DR, Lahesmaa R, Carpén O. DNA methylation and Transcriptome Changes Associated with Cisplatin Resistance in Ovarian Cancer. *Sci Rep.* 2017 May 4;7(1):1469.

230. Nguyen EV, Huhtinen K, Goo YA, Kaipio K, Andersson N, Rantanen V, Hynninen J, Lahesmaa

R, Carpen O, Goodlett DR. Hyper-phosphorylation of Sequestosome-1 Distinguishes Resistance to Cisplatin in Patient Derived High Grade Serous Ovarian Cancer Cells. *Mol Cell Proteomics*. 2017 Jul;16(7):1377-1392.

229. Liu YY, Chandler CE, Leung LM, McElheny CL, Mettus RT, Shanks RMQ, Liu JH, Goodlett DR, Ernst RK, Doi Y. Structural Modification of Lipopolysaccharide Conferred by *mcr-1* in Gram-Negative ESKAPE Pathogens. *Antimicrob Agents Chemother*. 2017 May 24;61(6).

228. Scott AJ, Oyler BL, Goodlett DR, Ernst RK. Lipid A structural modifications in extreme conditions and identification of unique modifying enzymes to define the Toll-like receptor 4 structure-activity relationship. *Biochim Biophys Acta*. 2017 Jan 17. [Epub ahead of print].

227. Moulder R, Bhosale SD, Lahesmaa R, Goodlett DR. The progress and potential of proteomic biomarkers for type 1 diabetes in children. *Expert Rev Proteomics*. 2017 Jan;14(1):31-41.

226. Freiberg JA, Le Breton Y, Tran BQ, Scott AJ, Harro JM, Ernst RK, Goo YA, Mongodin EF, Goodlett DR, McIver KS, Shirtliff ME. Global Analysis and Comparison of the Transcriptomes and Proteomes of Group A Streptococcus Biofilms. *mSystems*. 2016 Dec 6;1(6).

225. Kilgour DP, Hughes S, Kilgour SL, Mackay CL, Palmblad M, Tran BQ, Goo YA, Ernst RK, Clarke DJ, Goodlett DR. Autopiquer - a Robust and Reliable Peak Detection Algorithm for Mass Spectrometry. *J Am Soc Mass Spectrom*. 2017 Feb;28(2):253-262.

224. Sharma S, Mishra R, Bigham GE, Wehman B, Khan MM, Xu H, Saha P, Goo YA, Datla SR, Chen L, Tulapurkar ME, Taylor BS, Yang P, Karathanasis S, Goodlett DR, Kaushal S. A Deep Proteome Analysis Identifies the Complete Secretome as the Functional Unit of Human Cardiac Progenitor Cells. *Circ Res*. 2017 Mar 3;120(5):816-834.

223. Eshraghi A, Kim J, Walls AC, Ledvina HE, Miller CN, Ramsey KM, Whitney JC, Radey MC, Peterson SB, Ruhland BR, Tran BQ, Goo YA, Goodlett DR, Dove SL, Celli J, Veessler D, Mougous JD. Secreted Effectors Encoded within and outside of the Francisella Pathogenicity Island Promote Intramacrophage Growth. *Cell Host Microbe*. 2016 Nov 9;20(5):573-583.

222. Rehman T, Khan MM, Shad MA, Hussain M, Oyler BL, Goo YA, Goodlett DR. Detection of Carbofuran-Protein Adducts in Serum of Occupationally Exposed Pesticide Factory Workers in Pakistan. *Chem Res Toxicol*. 2016 Oct 6. PMID:27657490. [Epub ahead of print].

221. Alison J. Scott, Bryn Flinders, Jo Cappell, Bao Tran, David P.A. Kilgour, Ron M. A. Heeren, David R. **Goodlett**, Robert K. Ernst. Norharmane is a Versatile and Sensitive Matrix for Lipid Analysis by MALDI. *Pathog. Dis*. 2016 Sep 19. pii: ftw097. [Epub ahead of print].

220. Yoon SH, Liang T, Schneider T, Chandler CE, Ernst RK, Yen GS, Huang Y, Nilsson E, and **Goodlett** DR. Rapid Lipid A Structure Determination Via Surface Acoustic Wave Nebulization and Hierarchical Tandem Mass Spectrometry Algorithm. *Rapid Commun Mass Spectrom*. 2016 Aug 31. doi: 10.1002/rcm.7728. [Epub ahead of print]

219. Hecht AL, Casterline BW, Earley ZM, Goo YA, **Goodlett** DR, Bubeck Wardenburg J. Strain competition restricts colonization of an enteric pathogen and prevents colitis. *EMBO Rep*. 2016 Jul 18. pii: e201642282. [Epub ahead of print]

- 218.** Lee CF, Chavez JD, Garcia-Menendez L, Choi YS, Roe ND, Chiao YA, Edgar JS, Goo YA, **Goodlett DR**, Bruce JE, Tian R. Normalization of NAD⁺ Redox Balance as a Therapy for Heart Failure. *Circulation*. 2016 Aug 3. pii: CIRCULATIONAHA.116.022495. [Epub ahead of print]
- 217.** Li Y, Yoon SH, Wang X, Ernst RK, **Goodlett DR**. Structural Derivation of lipid A from *Cronobacter sakazakii* using Tandem Mass Spectrometry. *Rapid Commun Mass Spectrom*. 2016 Aug 8. doi: 10.1002/rcm.7712. [Epub ahead of print]
- 216.** Moulder R, Goo YA, **Goodlett DR**. Label-Free Quantitation for Clinical Proteomics. *Methods Mol Biol*. 2016;1410:65-76.
- 215.** Tripathy S, Chapman JD, Han CY, Hogarth CA, Arnold SL, Onken J, Kent T, **Goodlett DR**, Isoherranen N. All-trans-retinoic acid Enhances Mitochondrial Function in Models of Human Liver. *Mol Pharmacology* 2016 May;89(5):560-74.
- 214.** Huang Y, Heron SR, Clark AM, Edgar JS, Yoon SH, Kilgour DP, Turecek F, Aliseda A, **Goodlett DR**. Surface Acoustic Wave Nebulization Device with Dual Inter-Digitated Transducers Improves SAWN-MS Performance. *J Mass Spectrom* 2016, Jun;51(6):424-9, 2016.
- 213.** Chapman JD, Edgar JS, **Goodlett DR**, Goo YA. Use of captive spray ionization to increase the throughput of the data-independent acquisition technique PAcIFIC. *Rapid Commun Mass Spectrom* May 15;30(9):1101-7 2016.
- 212.** Yen GS, Edgar JS, Yoon SH, Huang Y, Heron SR, Chiu DT, **Goodlett DR**. PDMS microchannels coupled to surface acoustic wave nebulization mass spectrometry. *Rapid Commun Mass Spectrom* 2016 Apr 30;30(8):1096-100.
211. Wexler AG, Bao Y, Whitney JC, Bobay LM, Xavier JB, Schofield WB, Barry NA, Russell AB, Tran BQ, Goo YA, **Goodlett DR**, Ochman H, Mougous JD, Goodman AL. Human symbionts continuously inject and neutralize antibacterial toxins to persist in the gut. *Proc Natl Acad Sci U S A*. 2016 Mar 29;113(13):3639-44.
- 210.** Hommersom B, Syed SU, Eijkel GB, Kilgour DP, **Goodlett DR**, Heeren RM. An Ambient Detection System for Visualization of Charged Particles generated via Ambient Ionization Techniques. *RCMS* 2016 Feb 15;30(3):352-8.
- 209.** Moulder R, Bhosale SD, Erkkilä T, Laajala E, Salmi J, Nguyen EV, Kallionpää H, Mykkänen J, Vähä-Mäkilä M, Hyöty H, Veijola R, Ilonen J, Simell T, Toppari J, Knip M, **Goodlett DR**, Lähdesmäki H, Simell O, Lahesmaa R. Serum proteomes distinguish children developing type 1 diabetes in a cohort with HLA-conferred susceptibility. *Diabetes*. 2015 Jun;64(6):2265-78.
- 208.** Monkkonen L, Edgar JS, Winters D, Heron SR, Mackay CL, Masselon CD, Stokes AA, Langridge-Smith PR, **Goodlett DR**. Screen-Printed Digital Microfluidics Combined with Surface Acoustic Wave Nebulization for Hydrogen-Deuterium Exchange Measurements. Accepted at *J Chromatogr* 2015, Mar 25;1439:161-6.
- 207.** Tran BQ, Barton C, Feng J, Sandjong A, Yoon SH, Awasthi S, Liang T, Khan MM, Kilgour DP, **Goodlett DR**, Goo YA. Comprehensive glycosylation characterization of therapeutic mAbs by top-and middle-down mass spectrometry. Accepted at *J Proteomics - Data in Brief*, 2015.
- 206.** Jung S, Danziger SA, Panchaud A, von Haller P, Aitchison JD, **Goodlett DR**. Systematic

analysis of yeast proteome reveals peptide detectability factors for mass spectrometry. Accepted at *J Proteomics and Bioinformatics* 2016 Vol.8: 231-239.

205. Tran BQ, Barton C, Feng J, Sandjong A, Yoon SH, Awasthi S, Liang T, Khan MM, Kilgour DP, **Goodlett** DR, Goo YA. Comprehensive glycosylation profiling of IgG and IgG-fusion proteins by top-down MS with multiple fragmentation techniques. *J Proteomics*. 2015 Oct 17. pii: S1874-3919(15)30164-0.

204. Hittle LE, Powell DA, Jones JW, Tofigh M, **Goodlett** DR, Moskowitz SM, Ernst RK. Site-specific activity of the acyltransferases HtrB1 and HtrB2 in *Pseudomonas aeruginosa* lipid A biosynthesis. *Pathog Dis*. 2015 Nov;73(8).

203. Tran BQ, **Goodlett** DR, Goo YA. Advances in protein complex analysis by chemical cross-linking coupled with mass spectrometry (CXMS) and bioinformatics. *Biochim Biophys Acta*. 2015 May 27. pii: S1570-9639(15)00155-7.

202. Kilgour DP, Van Orden SL, Tran BQ, Goo YA, **Goodlett** DR. Producing Isotopic Distribution Models for Fully Apodized Absorption Mode FT-MS. *Anal Chem*. 2015 Jun 2;87(11):5797-801.

201. Canterbury JD, Merrihew GE, MacCoss MJ, **Goodlett** DR, Shaffer SA. Comparison of data acquisition strategies on quadrupole ion trap instrumentation for shotgun proteomics. *J Am Soc Mass Spectrom*. 2014 Dec;25(12):2048-59.

200. Swiderski K, Shaffer SA, Gallis B, Odom GL, Arnett AL, Scott Edgar J, Baum DM, Chee A, Naim T, Gregorevic P, Murphy KT, Moody J, **Goodlett** DR, Lynch GS, Chamberlain JS. Phosphorylation within the cysteine-rich region of dystrophin enhances its association with β -dystroglycan and identifies a potential novel therapeutic target for skeletal muscle wasting. *Hum Mol Genet*. 2014 Dec 20;23(25):6697-711.

199. Russell AB, Wexler AG, Harding BN, Whitney JC, Bohn AJ, Goo YA, Tran BQ, Barry NA, Zheng H, Peterson SB, Chou S, Gonen T, **Goodlett** DR, Goodman AL, Mougous JD. A type VI secretion-related pathway in *Bacteroidetes* mediates interbacterial antagonism. *Cell Host Microbe*. 2014 Aug 13;16(2):227-36.

198. Nguyen EV, Gharib SA, Schnapp LM, **Goodlett** DR. Shotgun MS proteomic analysis of bronchoalveolar lavage fluid in normal subjects. *Proteomics Clin Appl*. 2014 Oct;8(9-10):737-47.

197. Cary GA, Yoon SH, Garmendia Torres C, Wang K, Hays M, Ludlow C, **Goodlett** DR, Dudley AM. Identification and characterization of a drug-sensitive strain enables puromycin-based translational assays in *Saccharomyces cerevisiae*. *Yeast*. 2014 May;31(5):167-78..

196. Whitney JC, Beck CM, Goo YA, Russell AB, Harding B, De Leon JA, Cunningham D A, Tran BQ, Low DA, **Goodlett** DR, Hayes CS, Mougous JD. Genetically distinct pathways guide effector export through the type VI secretion system. *Mol Microbiol*. 2014 May;92(3):529-42.

195. Pan S, Chen R, Tamura Y, Crispin DA, Lai LA, May DH, McIntosh MW, **Goodlett** DR, Brentnall TA. Quantitative Glycoproteomics Analysis Reveals Changes in N-Glycosylation Level Associated with Pancreatic Ductal Adenocarcinoma. *J Proteome Res*. 2014 Mar 7;13(3):1293-306.

- 194.** Schwarz S, Singh P, Robertson JD, Leroux M, Skerrett SJ, **Goodlett DR**, West TE, Mougous JD. VgrG-5 is a Burkholderia type VI secretion exported protein required for multinucleated giant cell formation and virulence. *Infect Immun*. 2014 Apr;82(4):1445-52.
- 193.** Karan R, Dassarma P, Balcer-Kubiczek E, Weng RR, Liao CC, **Goodlett DR**, Ng WV, Dassarma S. Bioengineering radioresistance by overproduction of RPA, a mammalian-type single-stranded DNA-binding protein, in a halophilic archaeon. *Appl Microbiol Biotechnol*. 2014 Feb;98(4):1737-47.
- 192.** Thaipisuttikul I, Hittle LE, Chandra R, Zangari D, Dixon CL, Garrett TA, Rasko DA, Dasgupta N, Moskowitz SM, Malmström L, **Goodlett DR**, Miller SI, Bishop RE, Ernst RK. A divergent *Pseudomonas aeruginosa* palmitoyltransferase essential for cystic fibrosis-specific lipid A. *Mol Microbiol*. 2014 Jan;91(1):158-74.
- 191.** Chapman JD, **Goodlett DR**, Masselon CD. Multiplexed and data-independent tandem mass spectrometry for global proteome profiling. *Mass Spectrom Rev*. 2013 Nov 26. REVIEW.
- 190.** Nguyen EV, Gharib SA, Crothers K, Chow YH, Park DR, **Goodlett DR**, Schnapp LM. Proteomic landscape of bronchoalveolar lavage fluid in human immunodeficiency virus infection. *Am J Physiol Lung Cell Mol Physiol*. 2014 Jan 1;306(1):L35-42.
- 189.** Nunn BL, Faux JF, Hippmann AA, Maldonado MT, Harvey HR, **Goodlett DR**, Boyd P W, Strzpek RF. Diatom proteomics reveals unique acclimation strategies to mitigate Fe limitation. *PLoS One*. 2013 Oct 16;8(10):e75653.
- 188.** Weng RR, Chu LJ, Shu HW, Wu TH, Chen MC, Chang Y, Tsai YS, Wilson MC, Tsay YG, **Goodlett DR**, Ng WV. Large precursor tolerance database search - a simple approach for estimation of the amount of spectra with precursor mass shifts in proteomic data. *J Proteomics*. 2013 Oct 8;91:375-84.
- 187.** Jensen K, Goo YA, Yahiaoui A, Bajwa S, **Goodlett D**, Russo J, Voss J. Identification of Fatigue Biomarkers in Treated and Treatment-Naive HIV Patients: Preliminary Results. *Biol Res Nurs*. 2014 Jul;16(3):278-87.
- 186.** Mattes TE, Nunn BL, Marshall KT, Proskurowski G, Kelley DS, Kawka OE, **Goodlett DR**, Hansell DA, Morris RM. Sulfur oxidizers dominate carbon fixation at a biogeochemical hot spot in the dark ocean. *ISME J*. 2013 Jul 11. doi: 10.1038/ismej.2013.113.
- 185.** Ryu S, **Goodlett DR**, Noble WS, Minin VN. A statistical approach to peptide identification from clustered tandem mass spectrometry data. *Proceedings (IEEE Int Conf Bioinformatics Biomed)*. 2012 Oct 4:648-653.
- 184.** Singh P, Nakatani E, **Goodlett DR**, Catalano CE. A Pseudo-Atomic Model for the Capsid Shell of Bacteriophage Lambda Using Chemical Cross-Linking/Mass Spectrometry and Molecular Modeling. *J Mol Biol*. 2013 Jun 25. doi:pil: S0022-2836(13)00406-3
- 183.** Nguyen EV, Gharib SA, Palazzo SJ, Chow YH, **Goodlett DR**, Schnapp LM. Proteomic profiling of bronchoalveolar lavage fluid in critically ill patients with ventilator-associated pneumonia. *PLoS One*. 2013;8(3):e58782.
- 182.** Smith LM, Kelleher NL; Consortium for Top Down Proteomics, Linial M, **Goodlett D**, Langridge-Smith P, Ah Goo Y, Safford G, Bonilla L, Kruppa G, Zubarev R, Rontree J, Cham

ot-Rooke J, Garavelli J, Heck A, Loo J, Penque D, Hornshaw M, Hendrickson C, Pasa-Tolic L, Borchers C, Chan D, Young N, Agar J, Masselon C, Gross M, McLafferty F, Tsybin Y, Ge Y, Sanders I, Langridge J, Whitelegge J, Marshall A. Proteoform: a single term describing protein complexity. *Nat Methods*. 2013 Mar;10(3):186-7.

181. Chapman JD, Gagné JP, Poirier GG, **Goodlett DR**. Mapping PARP-1 auto-ADP-ribosylation sites by liquid chromatography-tandem mass spectrometry. *J Proteome Res*. 2013 Apr 5;12(4):1868-80.

180. Jung S, Smith JJ, von Haller PD, Dilworth DJ, Sitko KA, Miller LR, Saleem RA, **Goodlett DR**, Aitchison JD. Global analysis of condition-specific subcellular protein distribution and abundance. *Mol Cell Proteomics*. 2013 May;12(5):1421-35.

179. Gong Y, Gallis BM, **Goodlett DR**, Yang Y, Lu H, Lacoste E, Lai H, Sasaki T. Effects of transferrin conjugates of artemisinin and artemisinin dimer on breast cancer cell lines. *Anti cancer Res*. 2013 Jan;33(1):123-32.

178. Lin X, Cook TJ, Zabetian CP, Leverenz JB, Peskind ER, Hu SC, Cain KC, Pan C, Edgar JS, **Goodlett DR**, Racette BA, Checkoway H, Montine TJ, Shi M, Zhang J. DJ-1 isoforms in whole blood as potential biomarkers of Parkinson disease. *Sci Rep*. 2012;2:954.

177. Zhao C, Gao Q, Roberts AG, Shaffer SA, Doneanu CE, Xue S, **Goodlett DR**, Nelson S D, Atkins WM. Cross-linking mass spectrometry and mutagenesis confirm the functional importance of surface interactions between CYP3A4 and holo/apo cytochrome b(5). *Biochemistry*. 2012 Nov 27;51(47):9488-500.

176. Goo YA, Cain K, Jarrett M, Smith L, Voss J, Tolentino E, Tsuji J, Tsai YS, Panchaud A, **Goodlett DR**, Shulman RJ, Heitkemper M. Urinary proteome analysis of irritable bowel syndrome (IBS) symptom subgroups. *J Proteome Res*. 2012 Dec 7;11(12):5650-62.

175. Rudra D, deRoos P, Chaudhry A, Niec RE, Arvey A, Samstein RM, Leslie C, Shaffer S A, **Goodlett DR**, Rudensky AY. Transcription factor Foxp3 and its protein partners form a complex regulatory network. *Nat Immunol*. 2012 Oct;13(10):1010-9.

174. Foss EJ, Radulovic D, Stirewalt DL, Radich J, Sala-Torra O, Pogosova-Agadjanyan EL, Hengel SM, Loeb KR, Deeg HJ, Meshinchi S, **Goodlett DR**, Bedalov A. Proteomic classification of acute leukemias by alignment-based quantitation of LC-MS/MS data sets. *J Proteome Res*. 2012 Oct 5;11(10):5005-10.

173. Yoon SH, Huang Y, Edgar JS, Ting YS, Heron SR, Kao Y, Li Y, Masselon CD, Ernst R, **Goodlett DR**. Surface Acoustic Wave Nebulization Facilitates Lipid Mass Spectrometric Analysis. *Anal Chem*. 2012 Aug 7;84(15):6530-7.

172. Moore EK, Nunn BL, **Goodlett DR**, Harvey HR. Identifying and tracking proteins through the marine water column: insights into the inputs and preservation mechanisms of protein in sediments. *Geochim Cosmochim Acta*. 2012 Apr 15;83:324-359.

171. Xing J, Kirby BJ, Whittington D, Wan Y, **Goodlett DR**. Evaluation of CYPs Inhibition and Induction by Artemisinin Antimalarials in Human Liver Microsomes and Primary Human Hepatocytes. *Drug Metab Dispos*. 2012 Sep;40(9):1757-64.

- 170.** Karadzic I, Maupin-Furlow J, Humbard M, Prunetti L, Singh P, **Goodlett DR**. Chemical cross-linking, mass spectrometry and in silico modeling of proteasomal 20S core particles of the haloarchaeon *Haloferax volcanii*. *Proteomics*. 2012 Jun;12(11):1806-14.
- 169.** Harrelson JP, Stamper BD, Chapman JD, **Goodlett DR**, Nelson SD. Covalent Modification and Time-Dependent Inhibition of Human CYP2E1 by the Meta Isomer of Acetaminophen. *Drug Metab Dispos*. 2012 Aug;40(8):1460-5.
- 168.** Russell AB, Singh P, Brittnacher M, Bui NK, Hood RD, Carl MA, Agnello DM, Schwarz S, **Goodlett DR**, Vollmer W, Mougous JD. A Widespread Bacterial Type VI Secretion Effector Superfamily Identified Using a Heuristic Approach. *Cell Host Microbe*. 2012 May 17;11(5):538-49.
- 167.** Li Y, Powell DA, Shaffer SA, Rasko DA, Pelletier MR, Leszyk JD, Scott AJ, Masoudi A, **Goodlett DR**, Wang X, Raetz CR, Ernst RK. LPS remodeling is an evolved survival strategy for bacteria. *Proc Natl Acad Sci U S A*. 2012 May 29;109(22):8716-21.
- 166.** Hengel SM, **Goodlett DR**. A Review of Tandem Mass Spectrometry Characterization of Adenosine Diphosphate-Ribosylated Peptides. *Int J Mass Spectrom*. 2012 Feb 15;312:114-121.
- 165.** Icenogle LM, Hengel SM, Coye LH, Streifel A, Collins CM, **Goodlett DR**, Moseley SL. Molecular and biological characterization of the streptococcal SpyA-mediated ADP-ribosylation of the intermediate filament protein vimentin. *J Biol Chem*. 2012 Jun 15;287(25):21481-91.
- 164.** Huang Y, Yoon SH, Heron SR, Masselon CD, Edgar JS, Tureček F, **Goodlett DR**. Surface Acoustic Wave Nebulization Produces Ions with Lower Internal Energy than Electrospray Ionization. *J Am Soc Mass Spectrom*. 2012 Jun;23(6):1062-70.
- 163.** Pan S, Chen R, Brand RE, Hawley S, Tamura Y, Gafken PR, Milless BP, **Goodlett DR**, Rush J, Brentnall TA. Multiplex targeted proteomic assay for biomarker detection in plasma: a pancreatic cancer biomarker case study. *J Proteome Res*. 2012 Mar 2;11(3):1937-48.
- 162.** Acosta-Martin AE, Panchaud A, Chwastyniak M, Dupont A, Juthier F, Gautier C, Jude B, Amouyel P, **Goodlett DR**, Pinet F. Quantitative mass spectrometry analysis using PACIFIC for the identification of plasma diagnostic biomarkers for abdominal aortic aneurysm. *PLoS One*. 2011;6(12):e28698.
- 161.** Liu X, Sirotkin Y, Shen Y, Anderson G, Tsai YS, Ting YS, **Goodlett DR**, Smith RD, Bafna V, Pevzner PA. Protein identification using top-down spectra. *Mol Cell Proteomics*. 2012 Jun;11(6):M111.008524.
- 160.** Hengel SM, Murray E, Langdon S, Hayward L, O'Donoghue J, Panchaud A, Hupp T, **Goodlett DR**. Data-independent Proteomic Screen Identifies Novel Tamoxifen Agonist that Mediates Drug Resistance. *J Proteome Res*. 2011 Oct 7;10(10):4567-78.
- 159.** Foss EJ, Radulovic D, Shaffer SA, **Goodlett DR**, Kruglyak L, Bedalov A. Genetic Variation Shapes Protein Networks Mainly through Non-transcriptional Mechanisms. *PLoS Biol*. 2011 Sep;9(9):e1001144.
- 158.** Gharib SA, Nguyen EV, Lai Y, Plampin JD, **Goodlett DR**, Hallstrand TS. Induced sputum

m proteome in healthy subjects and asthmatic patients. *J Allergy Clin Immunol.* 2011 Dec;128(6):1176-1184.

157. Shi M, Sui YT, Peskind ER, Li GG, Hwang H, Devic I, Gingham C, Edgar JS, Pan C, **Goodlett** DR, Furay AR, Gonzalez-Cuyar LF, Zhang J. Salivary Tau Species are Potential Biomarkers of Alzheimer's Disease. *J Alzheimers Dis.* 2011;27(2):299-305.

156. Drew K, Winters P, Butterfoss GL, Berstis V, Uplinger K, Armstrong J, Riffle M, Schweighofer E, Bovermann B, **Goodlett** DR, Davis TN, Shasha D, Malmström L, Bonneau R. The proteome folding project: Proteome-scale prediction of structure and function. *Genome Res.* 2011 Nov;21(11):1981-94.

155. MacArthur I, Jones JW, **Goodlett** DR, Ernst RK, Preston A. Role of pagL and lpxO in *Bordetella bronchiseptica* lipid A biosynthesis. *J Bacteriol.* 2011 Sep;193(18):4726-35.

154. Chu LJ, Yang H, Shih P, Kao Y, Tsai YS, Chen J, Huang G, Weng RR, Ting YS, Fang X, von Haller PD, **Goodlett** DR, Ng WV. Metabolic capabilities and systems fluctuations in *Haloarcula marismortui* revealed by integrative genomics and proteomics analyses. *J Proteome Res.* 2011 Jul 1;10(7):3261-73.

153. Thatcher JE, Buttrick B, Shaffer SA, Shimshoni JA, **Goodlett** DR, Nelson WL, Isoherranen N. Substrate specificity and ligand interactions of CYP26A1, the human liver retinoic acid hydroxylase. *Mol Pharmacol.* 2011 Aug;80(2):228-39.

152. Yu L, Tan Y, Tsai Y, **Goodlett** DR, Polfer NC. On the relevance of peptide sequence permutations in shotgun proteomics studies. *J Proteome Res.* 2011 May 6;10(5):2409-16.

151. Devic I, Hwang H, Edgar JS, Izutsu K, Presland R, Pan C, **Goodlett** DR, Wang Y, Armary J, Tumas V, Zabetian CP, Leverenz JB, Shi M, Zhang J. Salivary α -synuclein and DJ-1: potential biomarkers for Parkinson's disease. *Brain.* 2011 Jul;134(Pt 7):e178.

150. Mealman TD, Bagai I, Singh P, **Goodlett** DR, Rensing C, Zhou H, Wysocki VH, McEvoy MM. Interactions between CusF and CusB identified by NMR spectroscopy and chemical cross-linking coupled to mass spectrometry. *Biochemistry.* 2011 Apr 5;50(13):2559-66.

149. Ting YS, Shaffer SA, Jones JW, Ng WV, Ernst RK, **Goodlett** DR. Automated lipid A structure assignment by a hierarchical tandem mass spectrometry algorithm. *J Am Soc Mass Spectrom.* 2011 May;22(5):856-66.

148. Panchaud A, Jung S, Shaffer SA, Aitchison JD, **Goodlett** DR. Precursor acquisition independent from ion count goes faster, quantitative and accurate. *Anal Chem.* 2011 Mar 15;83(6):2250-7.

147. Malmström L, **Goodlett** DR. Protein structure modeling. *Methods Mol Biol.* 2010;673:63-72.

146. Fang X, Yoon JG, Li L, Tsai YS, Zheng S, Hood L, **Goodlett** DR, Foltz G, Lin B. Landscape of the SOX2 protein-protein interactome. *Proteomics.* 2011 Mar;11(5):921-34.

145. Fang X, Yoon JG, Li L, Yu W, Shao J, Hua D, Zheng S, Hood L, **Goodlett** DR, Foltz G, Lin B. The SOX2 response program in glioblastoma multiforme: an integrated ChIP-seq, expression microarray, and microRNA analysis. *BMC Genomics.* 2011 Jan 6;12:11.

144. Wilderman PR, Shah MB, Li S, Liu T, Roberts AG, **Goodlett** DR, Stout CD, Woods Jr., VL, Halpert JR. Conformational Heterogeneity of Cytochrome P450 2B4: Hydrogen-Deuterium Exchange Mass Spectrometry and X-Ray Crystallography. *J Biol Chem*. 2010 Dec 3;285(49): 38602-11.
143. McMillan DGG, Velasquez I, Nunn BL, **Goodlett** DR, Hunter KA, Lamont I, Sander SG, Cook GM. Acquisition of Iron by Alkaliphilic *Bacillus* species Growing at Extreme pH. *Appl Environ Microbiol*. 2010 Oct;76(20):6955-61.
142. Reiner CL, McCullar J, Kow R, Le J, **Goodlett** DR, Aebersold R, Nathanson NM. RACK1 Associates with Muscarinic Receptors and Regulates M₂ Receptor Trafficking. *PLoS One*. 2010 Oct 20;5(10):e13517.
141. Chu L, Chen M, Setter J, Tsai Y, Yang H, Fung X, Ying YS, Scott SA, Taylor G, von Haller P, **Goodlett** DR, Ng WV. New Structural Proteins of *Halobacterium salinarum* Gas Vesicle Revealed by Comparative Proteomics Analysis. *J Proteome Res*. 2011 Mar 4;10(3):1170-8.
140. Sanowar S, Singh P, Pfuetzner RA, André I, Zheng H, Yip H, Spreter T, Strynadka NCJ, Gonen T, Baker D, **Goodlett** DR, Miller SI. Integrating structural technologies to define interactions in a bacteria secretion machine. *mBIO* 2010 Aug 3;1(3).
139. Goo YA, Tsai YS, Liu AY, **Goodlett** Dr, Yang CC. Urinary Proteomics Evaluation in Interstitial Cystitis/Painful Bladder Syndrome: A Pilot Study. *Int Braz J Urol*. 2010 Jul-Aug;36(4):464-78.
138. Nunn BL, Ting YS, Malmstrom L, Tsai YS, Squier A, **Goodlett** DR, Harvey HR. The path to preservation: Using proteomics to decipher the fate of diatom proteins during microbial degradation. *Limnol. Oceanogr.*, 55(4), 2010, 1790–1804.
137. Hengel SM, Icenogle L, Collins C, **Goodlett** DR. Sequence assignment of ADP-ribosylated peptides is facilitated as peptide length increases. *Rapid Commun Mass Spectrom*. 2010 Aug 15;24(15):2312-6.
136. Chakrabarti L, Zahra R, Jackson SM, Kazemi-Esfarjani P, Sopher BL, Mason AG, Toneff T, Ryu S, Shaffer S, Kansy JW, Eng J, Merrihew G, MacCoss MJ, Murphy A, **Goodlett** DR, Hook V, Bennett CL, Pallanck LJ, La Spada AR. Mitochondrial dysfunction in NnaD mutant flies and Purkinje cell degeneration mice reveals a role for Nna proteins in neuronal bioenergetics. *Neuron*. 2010 Jun 24;66(6):835-47.
135. Mo F, Mo Q, Chen Y, **Goodlett** DR, Hood L, Omenn GS, Li S, Lin B. WaveletQuant, an improved quantification software based on wavelet signal threshold de-noising for labeled quantitative proteomic analysis. *BMC Bioinformatics*. 2010 Apr 29;11:219.
134. Goo YA, **Goodlett** DR. Advances in proteomic prostate cancer biomarker discovery. *J Proteomics*. 2010 Sep 10;73(10):1839-50.
133. Heron SR, Wilson R, Shaffer SA, Goodlett DR, Cooper JM. [Surface acoustic wave nebulization of peptides as a microfluidic interface for mass spectrometry](#). *Anal Chem*. 2010 May 15;82(10):3985-9.
132. McIlwain S, Draghicescu P, Singh P, **Goodlett** DR, Noble WS. [Detecting cross-linked peptides by searching against a database of cross-linked peptide pairs](#). *J Proteome Res*. 2010 May 7;9(5):2488-

131. Panchaud A, Singh P, Shaffer SA, Goodlett DR. xComb: a cross-linked peptide database approach to protein-protein interaction analysis. J Proteome Res. 2010 May 7;9(5):2508-15.

130. Kim JH, Stevens RC, Maccoss MJ, **Goodlett DR**, Scherl A, Richter RJ, Suzuki SM, Furlong CE. Identification and characterization of biomarkers of organophosphorus exposures in humans. *Adv Exp Med Biol.* 2010;660:61-71.

129. Singh P, Panchaud A, **Goodlett DR**. Chemical cross-linking and mass spectrometry as a low-resolution protein structure determination technique. *Anal Chem.* 2010 Apr 1;82(7):2636-42.

128. Jones JW, Cohen IE, Tureček F, **Goodlett DR**, Ernst RK. Comprehensive structure characterization of lipid A extracted from *Yersinia pestis* for determination of its phosphorylation configuration. *J Am Soc Mass Spectrom.* 2010 May;21(5):785-99.

127. Morris RM, Nunn BL, Frazar C, **Goodlett DR**, Ting YS, Rocap G. Comparative metaproteomics reveals ocean-scale shifts in microbial nutrient utilization and energy transduction. *ISME J.* 2010 May;4(5):673-85.

126. Morrissey C, Gallis B, Solazzi JW, Kim BJ, Gulati R, Vakar-Lopez F, **Goodlett DR**, Vessella RL, Sasaki T. Effect of artemisinin derivatives on apoptosis and cell cycle in prostate cancer cells. *Anticancer Drugs.* 2010 Apr;21(4):423-32.

125. Hood RD, Singh P, Hsu F, Güvener T, Carl MA, Trinidad RR, Silverman JM, Ohlson BB, Hicks KG, Plemel RL, Li M, Schwarz S, Wang WY, Merz AJ, **Goodlett DR**, Mougous A type VI secretion system of *Pseudomonas aeruginosa* targets a toxin to bacteria. *JD. Cell Host Microbe.* 2010 Jan 21;7(1):25-37.

124. Brentnall TA, Pan S, Bronner MP, Crispin DA, Mirzaei H, Cooke K, Tamura Y, Nikolskaya T, Jebailey L, **Goodlett DR**, McIntosh M, Aebersold R, Rabinovitch PS, Chen R. Proteins That Underlie Neoplastic Progression of Ulcerative Colitis. *Proteomics Clin Appl.* 2009 Sep 14;3(11):1326-1337.

123. Gharib SA, Nguyen E, Altemeier WA, Shaffer SA, Doneanu CE, **Goodlett DR**, Schnapp LM. Of mice and men: comparative proteomics of bronchoalveolar fluid. *Eur Respir J.* 2010 Jun;35(6):1388-95.

122. Jung S, Marelli M, Rachubinski RA, **Goodlett DR**, Aitchison JD. Dynamic changes in the subcellular distribution of Gpd1p in response to cell stress. *J Biol Chem.* 2010 Feb 26;285(9):6739-49.

121. Parra MC, Shaffer SA, Hajjar AM, Gallis BM, Hager A, **Goodlett DR**, Guina T, Miller S, Collins CM. Identification, cloning, expression, and purification of Francisella lpp3: An immunogenic lipoprotein. *Microbiol Res.* 2010 Sep 20;165(7):531-45.

120. Nunn BL, Aker JR, Shaffer SA, Tsai S, Strzepak RF, Boyd PW, Freeman TL, Brittnacher M, Malmström L, **Goodlett DR**. Deciphering diatom biochemical pathways via whole-cell proteomics. *Aquat Microb Ecol.* 2009 Jun 3;55(3):241-253.

119. Reimel BA, Pan S, May DH, Shaffer SA, **Goodlett DR**, McIntosh MW, Yerian LM, Bronner MP, Chen R, Brentnall TA. Proteomics on Fixed Tissue Specimens - A Review. *Curr Proteomics.* 2009 Apr

1;6(1):63-69.

118. Tsai YS, Scherl A, Shaw JL, MacKay CL, Shaffer SA, Langridge-Smith PR, **Goodlett DR**. Precursor ion independent algorithm for top-down shotgun proteomics. *J Am Soc Mass Spectrom*. 2009 Nov;20(11):2154-66.

117. Wang X, Lundgren AD, Singh P, **Goodlett DR**, Plymate SR, Wu JD. An six-amino acid motif in the alpha3 domain of MICA is the cancer therapeutic target to inhibit shedding. *Biochem Biophys Res Commun*. 2009 Sep 25;387(3):476-81.

116. Panchaud A, Scherl A, Shaffer SA, von Haller PD, Kulasekara HD, Miller SI, Goodlett DR. Precursor acquisition independent from ion count: how to dive deeper into the proteomics ocean. *Anal Chem*. 2009 Aug 1;81(15):6481-8.

115. Coats SR, Jones JW, Do CT, Braham PH, Bainbridge BW, To TT, **Goodlett DR**, Ernst RK, Darveau RP. Human Toll-like receptor 4 responses to *P. gingivalis* are regulated by lipid A 1- and 4'-phosphatase activities. *Cell Microbiol*. 2009 Nov;11(11):1587-99.

114. Pan S, Chen R, Reimel BA, Crispin DA, Mirzaei H, Cooke K, Coleman JF, Lane Z, Bronner MP, **Goodlett DR**, McIntosh MW, Traverso W, Aebersold R, Brentnall TA. Quantitative proteomics investigation of pancreatic intraepithelial neoplasia. *Electrophoresis*. 2009 Apr;30(7):1132-44.

113. Dahlberg CL, Nguyen EZ, **Goodlett D**, Kimelman D. Interactions between Casein kinase Iepsilon (CKIepsilon) and two substrates from disparate signaling pathways reveal mechanisms for substrate-kinase specificity. *PLoS ONE*. 2009;4(3):e4766.

112. Malmstroem L, Hou L, Atkins WM, **Goodlett DR**. On the use of hydrogen/deuterium exchange mass spectrometry data to improve de novo protein structure prediction. *Rapid Commun Mass Spectrom*. 2009 Feb;23(3):459-61. No abstract available.

111. Pan S, Aebersold R, Chen R, Rush J, **Goodlett DR**, McIntosh MW, Zhang J, Brentnall TA. Mass spectrometry based targeted protein quantification: methods and applications. *J Proteome Res*. 2009 Feb;8(2):787-97. REVIEW.

110. Moore NH, Costa LG, Shaffer SA, **Goodlett DR**, Guizzetti M. Shotgun proteomics implicates extracellular matrix proteins and protease systems in neuronal development induced by astrocyte cholinergic stimulation. *J Neurochem*. 2009 Feb;108(4):891-908.

109. Hengel SM, Shaffer SA, Nunn BL, **Goodlett DR**. Tandem mass spectrometry investigation of ADP-ribosylated kemptide. *J Am Soc Mass Spectrom*. 2009 Mar;20(3):477-83.

108. Gao Q, Xue S, Shaffer SA, Doneanu CE, **Goodlett DR**, Nelson SD. Minimize the detection of false positives by the software program DetectShift for 18O-labeled cross-linked peptide analysis. *Eur J Mass Spectrom (Chichester, Eng)*. 2008;14(5):275-80.

107. Nakase I, Gallis B, Takatani-Nakase T, Oh S, Lacoste E, Singh NP, **Goodlett DR**, Tanaka S, Futaki S, Lai H, Sasaki T. Transferrin receptor-dependent cytotoxicity of artemisinin-transferrin conjugates on prostate cancer cells and induction of apoptosis. *Cancer Lett*. 2009 Feb 18;274(2):290-8.

106. Pacheco B, Maccarana M, **Goodlett DR**, Malmström A, Malmström L. Identification of the active site of DS-epimerase 1 and requirement of N-glycosylation for enzyme function. *J Biol Chem*.

2009 Jan 16;284(3):1741-7.

105. Singh P, Shaffer SA, Scherl A, Holman C, Pfuetzner RA, Larson Freeman TJ, Miller SI, Hernandez P, Appel RD, Goodlett DR. Characterization of protein cross-links via mass spectrometry and an open-modification search strategy. *Anal Chem.* 2008 Nov 15;80(22):8799-806.

104. Goo YA, Liu AY, Ryu S, Shaffer SA, Malmström L, Page L, Nguyen LT, Doneanu CE, **Goodlett** DR. Identification of secreted glycoproteins of human prostate and bladder stromal cells by comparative quantitative proteomics. *Prostate.* 2009 Jan 1;69(1):49-61.

103. Scherl A, Tsai YS, Shaffer SA, **Goodlett** DR. Increasing information from shotgun proteomic data by accounting for misassigned precursor ion masses. *Proteomics.* 2008 Jul;8(14):2791-7.

102. Jones, JW, Shaffer, SA, Ernst, RK, **Goodlett**, DR, Tureček, F. Determination of pyrophosphorylated forms of lipid A in Gram-negative bacteria using a multivariate mass spectrometric approach. *Proc Natl Acad Sci U S A.* 2008 105(35):12742-7.

101. Scherl A, Shaffer SA, Taylor GK, Kulasekara HD, Miller SI, **Goodlett** DR. Genome-specific gas-phase fractionation strategy for improved shotgun proteomic profiling of proteotypic peptides. *Anal Chem.* 2008 80(4):1182-91.

100. Scherl A, Shaffer SA, Taylor GK, Hernandez P, Appel RD, Binz PA, **Goodlett** DR. On benefits of acquiring Peptide fragment ions at high measured mass accuracy. *J Am Soc Mass Spectrom.* 2008 19(6):891-901.

99. Wang H, Kennedy DS, Nugent KD, Taylor GK, **Goodlett** DR. A Qit-q-ToF mass spectrometer for two-dimensional tandem mass spectrometry. *Rapid Commun Mass Spectrom* 2007;21(19): 3223-6.

98. Guina T, Radulovic D, Bahrami AJ, Bolton DL, Rohmer L, Jones-Isaac KA, Chen J, Gallagher LA, Gallis B, Ryu S, Taylor GK, Brittnacher MJ, Manoil C, **Goodlett** DR MglA Regulates Francisella tularensis subsp. novicida Response to Starvation and Oxidative Stress. *J Bacteriol.* 2007 Sep;189(18):6580-6.

97. Prakash A, Piening B, Whiteaker J, Zhang H, Shaffer SA, Martin D, Hohmann L, Cooke K, Olson JM, Hansen S, Flory MR, Lee H, Watts J, **Goodlett** DR, Aebersold R, Paulovich A, Schwikowski B. Assessing bias in experiment design for large-scale mass spectrometry-based quantitative proteomics. *Mol Cell Proteomics.* 2007 Oct;6(10):1741-8.

96. Rohmer L, Fong C, Abmayr S, Wasnick M, Larson Freeman TJ, Radey M, Guina T, Svensson K, Hayden HS, Jacobs M, Gallagher LA, Manoil C, Ernst RK, Drees B, Buckley D, Haugen E, Bovee D, Zhou Y, Chang J, Levy R, Lim R, Gillett W, Guentherer D, Kang A, Shaffer SA, Taylor G, Chen J, Gallis B, D'Argenio DA, Forsman M, Olson MV, **Goodlett** DR, Kaul R, Miller SI, Brittnacher MJ. Comparison of Francisella tularensis genomes reveals evolutionary events associated with the emergence of human pathogenic strains. *Genome Biol.* 2007 Jun 5;8(6):R102

95. Gendlina I, Held KG, Bartra SS, Gallis BM, Doneanu CE, **Goodlett** DR, Plano GV, Collins CM. Identification and type III-dependent secretion of the Yersinia pestis insecticidal-like proteins. *Mol Microbiol.* 2007 Jun;64(5):1214-27.

94. D'Argenio DA, Wu M, Hoffman LR, Kulasekara HD, Deziel E, Smith EE, Nguyen H, Ernst RK,

Larson Freeman TJ, Spencer DH, Brittnacher M, Hayden HS, Selgrade S, Klausen M, **Goodlett DR**, Burns JL, Ramsey BW, Miller SI. Growth phenotypes of *Pseudomonas aeruginosa* lasR mutants adapted to the airways of cystic fibrosis patients. *Mol Microbiol*. 2007 Apr;64(2):512-33.

93. Trute M, Gallis B, Doneanu C, Shaffer S, **Goodlett D**, Gallagher E. Characterization of hepatic glutathione S-transferases in coho salmon (*Oncorhynchus kisutch*). *Aquat Toxicol*. 2007 28;81(2):126-36.

92. Shaffer SA, Harvey MD, **Goodlett DR**, Ernst, RK. Structural Heterogeneity and Environmentally Regulated Remodeling of *Francisella tularensis* subspecies *novicida* Lipid A Characterized by Tandem Mass Spectrometry. *J Am Soc Mass Spectrom*. 2007 18, 1080-92.

91. Foss EJ, Radulovic D, Shaffer SA, Ruderfer DM, A Bedalov, DR Goodlett, L Kruglyak. Genetic basis of proteome variation in yeast. *Nature Genetics*, 2007 39(11):1369-75.

90. Pan S, Zhu D, Quinn JF, Peskind ER, Montine TJ, Lin B, **Goodlett DR**, Taylor G, Eng J, Zhang J. A combined dataset of human cerebrospinal fluid proteins identified by multi-dimensional chromatography and tandem mass spectrometry. *Proteomics*. 2007 Feb;7(3):469-73.

89. Chen R, Pan S, Cooke K, Moyes KW, Bronner MP, **Goodlett DR**, Aebersold R, Brentnall TA. Comparison of pancreas juice proteins from cancer versus pancreatitis using quantitative proteomic analysis. *Pancreas*. 2007 Jan;34(1):70-9.

88. Bellew M, Coram M, Fitzgibbon M, Igra M, Randolph T, Wang P, May D, Eng J, Fang R, Lin C, Chen J, **Goodlett D**, Whiteaker J, Paulovich A, McIntosh M. A suite of algorithms for the comprehensive analysis of complex protein mixtures using high-resolution LC-MS. *Bioinformatics*. 2006 Aug 1;22(15):1902-9.

87. Jones JW, Sasaki T, **Goodlett DR**, Turecek F. Electron capture in spin-trap capped peptides. An experimental example of ergodic dissociation in Peptide cation-radicals. *J Am Soc Mass Spectrom*. 2007 Mar;18(3):432-44.

86. Hajjar AM, Harvey MD, Shaffer SA, **Goodlett DR**, Sjostedt A, Edebro H, Forsman M, Bystrom M, Pelletier M, Wilson CB, Miller SI, Skerrett SJ, Ernst RK. Lack of in vitro and in vivo recognition of *Francisella* subspecies LPS by Toll-like receptors. *Infect Immun*. 2006 Dec;74(12):6730-8.

85. Schnapp LM, Donohoe S, Chen J, Sunde DA, Kelly PM, Ruzinski J, Martin T, **Goodlett DR**. Mining the acute respiratory distress syndrome proteome: identification of the insulin-like growth factor (IGF)/IGF-binding protein-3 pathway in acute lung injury. *Am J Pathol*. 2006 Jul;169(1):86-95.

84. Nunn BL, Shaffer SA, Scherl A, Gallis B, Wu M, Miller SI, **Goodlett DR**. Comparison of a *Salmonella typhimurium* proteome defined by shotgun proteomics directly on an LTQ-FT and by proteome pre-fractionation on an LCQ-DUO. *Brief Funct Genomic Proteomic*. 2006 Jun;5(2):154-68. Review.

83. Chen R, Pan S, Yi EC, Donohoe S, Bronner MP, Potter JD, **Goodlett DR**, Aebersold R, Brentnall TA. Quantitative proteomic profiling of pancreatic cancer juice. *Proteomics*. 2006 Jul;6(13):3871-9.

82. Xu J, Chen J, Peskind ER, Jin J, Eng J, Pan C, Montine TJ, **Goodlett DR**, Zhang J. Characterization of proteome of human cerebrospinal fluid. *Int Rev Neurobiol*. 2006;73:29-98.

81. Gao Q, Doneanu CE, Shaffer SA, Adman ET, **Goodlett** DR, Nelson SD. Identification of the interactions between cytochrome P450 2E1 and cytochrome b5 by mass spectrometry and site-directed mutagenesis. *J Biol Chem*. 2006 Jul 21;281(29):20404-17.
80. Q. Gao, S. Xue, C.E. Doneanu, S.A. Shaffer, D.R. **Goodlett**, and S.D. Nelson. "Pro-CrossLink. Software Tool for Protein Cross-Linking and Mass Spectrometry" *Analytical Chemistry* 2006, ASAP Article
79. Gan RR, Yi EC, Chiu Y, Lee H, Kao YC, Wu TH, Aebersold R, **Goodlett** DR, Ng WV. Proteome analysis of Halobacterium sp. NRC-1 facilitated by the biomodules analysis tool BMSorter. *Mol Cell Proteomics*. 2006 Jun;5(6):987-97.
78. Corthals GL, Aebersold R, **Goodlett** DR. Identification of phosphorylation sites using microimmobilized metal affinity chromatography. *Methods Enzymol*. 2005;405:66-81. Review
77. Goo YA, **Goodlett** DR, Pascal LE, Worthington KD, Vessella RL, True LD, Liu AY. Stromal mesenchyme cell genes of the human prostate and bladder. *BMC Urol*. 2005 Dec 12;5:17.
76. Chen SS, Deutsch EW, Yi EC, Li XJ, **Goodlett** DR, Aebersold R. Improving mass and liquid chromatography based identification of proteins using bayesian scoring. *J Proteome Res*. 2005 Nov-Dec;4(6):2174-84.
75. Taylor GK, **Goodlett** DR. Rules governing protein identification by mass spectrometry. *Rapid Commun Mass Spectrom*. 2005;19(23):3420.
74. Filen JJ, Nyman TA, Korhonen J, **Goodlett** DR, Lahesmaa R. Characterization of microsomal fraction proteome in human lymphoblasts reveals the down-regulation of galectin-1 by interleukin-12. *Proteomics*. 2005 Dec;5(18):4719-32.
73. Chen R, Yi EC, Donohoe S, Pan S, Eng J, Cooke K, Crispin DA, Lane Z, **Goodlett** DR, Bronner MP, Aebersold R, Brentnall TA. Pancreatic cancer proteome: the proteins that underlie invasion, metastasis, and immunologic escape. *Gastroenterology*. 2005 Oct;129(4):1187-97.
72. K.D. Welch, B. Wen, D.R. **Goodlett**, E.C. Yi, H. Lee, T.P. Reilly, S.D. Nelson, L.R. Pohl "Proteomic Identification of Potential Susceptibility Factors in Drug-Induced Liver Disease" *Chem Res Toxicol*. 2005, 18, 924.
71. J. Zhang, D.R. **Goodlett**, J.F. Quinn, E. Peskind, J.A. Kaye, Y. Zhou, C. Pan, E. Yi, J. Eng, Q. Wang, R.H. Aebersold, T.J. Montine "Quantitative proteomics of cerebrospinal fluid from patients with Alzheimer disease" *J Alzheimers Dis*. 2005, 7, 125.
70. B. Lin, J.T. White, W. Lu, T. Xie, A.G. Utleg, X. Yan. E.C. Yi, P. Shannon, I. Khrebtukova, P.H. Lange, D.R. **Goodlett**, D. Zhou, T.J. Vasicek, L. Hood "Evidence for the presence of disease-perturbed networks in prostate cancer cells by genomic and proteomic analyses: a systems approach to disease" *Cancer Res*. 2005, 65, 3081.
69. M.P. Molloy, S. Donohoe, E.E. Brzezinski, G.W. Kilby, T.I. Stevenson, J.D. Baker, D.R. **Goodlett**, D.A. Gage "Large-scale evaluation of quantitative reproducibility and proteome coverage using acid cleavable isotope coded affinity tag mass spectrometry for proteomic profiling" *Proteomics* 2005, 5, 1204.

68. E.C. Yi, X.J. Li, K. Cooke, H. Lee, B. Raught, A. Page, V. Aneliunas, P. Hieter, D.R. **Goodlett**, R. Aebersold "Increased quantitative proteome coverage with (13)C/(12)C-based, acid-cleavable isotope-coded affinity tag reagent and modified data acquisition scheme" *Proteomics* 2005, 5, 380.
67. M. Marelli, J.J. Smith, S. Jung, E. Yi, A.I. Nesvizhskii, R.H. Christmas, R.A. Saleem, Y.Y. Tam, A. Fagarasanu, D.R. **Goodlett**, R. Aebersold, R.A. Rachubinski, J.D. Aitchison "Quantitative mass spectrometry reveals a role for the GTPase Rho1p in actin organization on the peroxisome membrane" *J Cell Biol.* 2004, 167, 1099.
66. J. Zhang, D.R. **Goodlett**, E.R. Peskind, J.F. Quinn, Y. Zhou, Q. Wang, C. Pan, E. Yi, J. Eng, R.H. Aebersold, T.J. Montine "Quantitative proteomic analysis of age-related changes in human cerebrospinal fluid" *Neurobiol Aging* 2005, 26, 207.
65. W. Yan, H. Lee, E.C. Yi, D. Reiss, P. Shannon, B.K. Kwieciszewski, C. Coito, X.J. Li, A. Keller, J. Eng, T. Galitski, D.R. **Goodlett**, R. Aebersold, M.G. Katze "System-based proteomic analysis of the interferon response in human liver cells" *Genome Biol.* 2004;5(8):R54.
64. B. Wollscheid, P.D. von Haller, E. Yi, S. Donohoe, K. Vaughn, A. Keller, A.I. Nesvizhskii, J. Eng, X.J. Li, D.R. **Goodlett**, R. Aebersold, J.D. Watts "Lipid raft proteins and their identification in T lymphocytes" *Subcell Biochem.* 2004, 37, 121.
63. Q. Tian, S.B. Stepaniants, M. Mao, L. Weng, M.C. Feetham, M.J. Doyle, E.C. Yi, H. Dai, V. Thorsson, J. Eng, D. **Goodlett**, J.P. Berger, B. Gunter, P.S. Linseley, R.B. Stoughton, R. Aebersold, S.J. Collins, W.A. Hanlon, L.E. Hood "Integrated genomic and proteomic analyses of gene expression in mammalian cells" *Mol Cell Proteomics.* 2004 Oct;3(10):960-9.
62. Y. Zhou, G. Gu, D.R. **Goodlett**, T. Zhang, C. Pan, T.J. Montine, K.S. Montine, R.H. Aebersold, J. Zhang "Analysis of alpha -synuclein-associated proteins by quantitative proteomics" *J Biol Chem.* 2004, 279, 39155.
61. J. Zhang, D.R. **Goodlett** "Proteomic approach to studying Parkinson's disease" *Mol Neurobiol.* 2004, 29, 271.
60. H. Lee, E.C. Yi, B. Wen, T.P. Reily, L. Pohl, S. Nelson, R. Aebersold, D.R. **Goodlett** "Optimization of reversed-phase microcapillary liquid chromatography for quantitative proteomics" *J Chromatogr B Analyt Technol Biomed Life Sci.* 2004, 803, 101.
59. P.R. Hardwidge, I. Rodriguez-Escudero, D. Goode, S. Donohoe, J. Eng, D.R. **Goodlett**, R. Aebersold, B.B. Finlay "Proteomic analysis of the intestinal epithelial cell response to enteropathogenic Escherichia coli." *J Biol Chem.* 2004, 279, 20127.
58. V.L. MacKay, X. Li, M.R. Flory, E. Turcott, G.L. Law, K.A. Serikawa, X.L. Xu, H. Lee, D.R. **Goodlett**, R. Aebersold, L.P. Zhao, D.R. Morris "Gene expression analyzed by high-resolution state array analysis and quantitative proteomics: response of yeast to mating pheromone" *Mol Cell Proteomics.* 2004, 3, 478.
57. D.B. Martin, D.R. Gifford, M.E. Wright, A. Keller, E. Yi, D.R. **Goodlett**, R. Aebersold, P.S. Nelson "Quantitative proteomic analysis of proteins released by neoplastic prostate epithelium" *Cancer Res.* 2004, 64, 347.

56. A. Fejes, E.C. Yi, D.R. **Goodlett**, J.T. Beatty “Shotgun proteomic analysis of chromatophores from the purple phototrophic bacterium *Rhodospirillum rubrum*” *Photosynthesis Research* 2004, 78, 195.
55. S. Purvine, J.T. Eppel, E.C. Yi, D.R. **Goodlett** “Shotgun collision induced dissociation of peptides using an electrospray ionization-time-of-flight mass spectrometer” *Proteomics* 2003, 3, 847.
54. E.C. Yi, H. Lee, R. Aebersold, D.R. **Goodlett** “Automated Routine Operation of a Microcapillary Trap Cartridge-Microcapillary-HPLC-ESI Emitter Device capable of Peptide Tandem Mass spectrometry at the Attomole level on an Ion Trap Mass Spectrometer” *Rapid Commun Mass Spectrom.* 2003, 17, 2093.
53. P.D. Von Haller, E. Yi, S. Donohoe, K. Vaughn, A. Keller, A.I. Nesvizhskii, J. Eng, X.J. Li, D.R. **Goodlett**, R. Aebersold, J.D. Watts “The application of new software tools to quantitative protein profiling via ICAT and tandem mass spectrometry: I. Statistically annotated data sets for peptide sequences and proteins identified via the application of ICAT and tandem mass spectrometry to proteins co-purifying with T cell lipid rafts” *Mol Cell Proteomics* 2003, 2, 426.
52. P.D. Von Haller, E. Yi, S. Donohoe, K. Vaughn, A. Keller, A.I. Nesvizhskii, J. Eng, X.J. Li, D.R. **Goodlett**, R. Aebersold, J.D. Watts “The application of new software tools to quantitative protein profiling via ICAT and tandem mass spectrometry: II. Evaluation of tandem mass spectrometry methodologies for large-scale protein analysis and the application of statistical tools for data analysis and interpretation” *Mol Cell Proteomics.* 2003, 2, 428.
51. Y.A. Goo, E.C. Yi, N.S. Baliga, W.A. Tao, M. Pan, R. Aebersold, D.R. **Goodlett**, L. Hood, W.V. Ng “Proteomic analysis of an extreme halophilic archaeon *Halobacterium sp.* NRC-1” *Mol Cell Proteomics* 2003, 2, 506.
50. E. Kolker, S. Purvine, M.Y. Galperin, S. Stolyar, D.R. **Goodlett**, A.I. Nesvizhskii, A. Keller, T. Xie, J.K. Eng, E. Yi, L. Hood, A.F. Picone, T. Cherny, B.C. Tjaden, A.F. Siegel, T.J. Reilly, K.S. Makarova, B.O. Palsson, A.L. Smith “Initial proteome analysis of model microorganism *Haemophilus influenzae* strain Rd KW20” *J Bacteriol.* 2003, 185, 4593.
49. Y. Shiio, R.N. Eisenman, E.C. Yi, S. Donohoe, D.R. **Goodlett**, R. Aebersold “Quantitative proteomic analysis of chromatin-associated factors” *J Am Soc Mass Spectrom* 2003, 14, 696.
48. A.G. Utleg, E.C. Yi, T. Xie, P. Shannon, J.T. White, D.R. **Goodlett**, L. Hood, B. Lin “Proteomic analysis of prostasomes” *Prostate* 2003, 56, 150.
47. Y. Shiio, E.C. Yi, S. Donohoe, D.R. **Goodlett**, R. Aebersold, R.N. Eisenman “*Quantitative Proteomic Analysis of Chromatin-associated Factors*” *J. Am Soc Mass Spectrom.* 2003, 14, 696.
46. T Guina, M. Wu, S.O. Purvine, E.C. Yi, R.K. Ernst, K.A. Lee, J. Eng, D.R. **Goodlett**, R. Aebersold, S.I. Miller “Proteomic Analysis of *Pseudomonas aeruginosa* Grown Under Magnesium Limitation” *J. Am Soc Mass Spectrom.* 2003, 14, 742.
45. J.A. Ranish, E.C. Yi, D.M. Leslie, S.O. Purvine, D.R. **Goodlett**, J. Eng, R. Aebersold “The study of macromolecular complexes by quantitative proteomics” *Nat. Genetics* 2003, 33, 349.
- 44 T. Guina, S.O. Purvine, E.C. Yi, J. Eng, D.R. **Goodlett**, R. Aebersold, S.I. Miller “Quantitative

Proteomic Analysis Indicates *Pseudomonas aeruginosa* Produces A Quinolone Signal In Cystic Fibrosis Airways” *Proc Natl Acad Sci U S A*, 2003, 100, 2771.

43. Y. Sydorsky, D.J. Dilworth, E.C. Yi, D.R. **Goodlett**, J.D. Aitchison “The intersection of Kap123p-mediated nuclear import and ribosome export pathways” *Mol. Cell. Biology* 2003, 23, 2042.
42. A. Keller, S. Purvine, A. Nesvizhskii, S. Stolyar, D.R. **Goodlett**, E. Kolker “Experimental protein mixture for validating tandem mass spectral analysis.” *OMICS* 2002, 6, 207.
41. N.S. Baliga, M. Pan, Y.A. Goo, E.C. Yi, D.R. **Goodlett**, K. Dimitrov, P. Shannon, R. Aebersold, W.V. Ng, L. Hood. “Coordinate regulation of energy transduction modules in *Halobacterium* sp. analyzed by a global systems approach” *Proc Natl Acad Sci U S A* 2002, 99, 14913.
40. E.C. Yi, M. Marelli, H. Lee, S.O. Purvine, R. Aebersold, J.D. Aitchison, D.R. **Goodlett** “Approaching complete peroxisome characterization by gas-phase fractionation” *Electrophoresis* 2002, 23, 3205.
39. Y. Shiio, S. Donohoe, E.C. Yi, D.R. **Goodlett**, R. Aebersold, R.N. Eisenman “Quantitative Proteomic Analysis of Myc Oncoprotein Function” *E.M.B.O.* 2002, 21, 5088.
38. D.R. **Goodlett** and E.C. Yi “Proteomics without Polyacrylamide” *Functional and Integrative Genomics* 2002, 2, 138.
37. S. Dramsi, M. Scheid, A. Maiti, P. Hojabrpour, X. Chen, K. Schubert, D.R. **Goodlett**, R. Aebersold, V. Duronio “Identification of a novel phosphorylation site, Ser170, as a regulator of Bad pro-apoptotic activity” *J. Biol. Chem.* 2002, 277, 6399.
36. F. Hayashi, D.M. Underhill, A. Ozinsky, K.D. Smith, E.C. Yi, J.K. Eng, D.R. Goodlett, A. Aderem “The Innate Immune Response to Bacterial Flagellin is Mediated by Toll-like Receptor-5” *Nature* 2001, 410, 1099.
35. T. Ideker, V. Thorsson, J.A. Ranish, R. Christmas, J. Buhler, J.K. Eng, R. Bumgarner, D.R. Goodlett, R. Aebersold, L. Hood “Integrated Genomic and Proteomic Analyses of a Systematically Perturbed Metabolic Network” *Science* 2001, 292, 929.
34. D.R. **Goodlett**, A. Keller, J.D. Watts, R. Newitt, E.C. Yi, S. Purvine, P. von Haller, J.K. Eng, R. Aebersold, E. Kolker “Differential Stable Isotopic Labeling of Peptides for Quantification and *de novo* Sequence Derivation” *R. Commun. Mass Spec.* 2001, 15, 1214.
33. P. von Haller, S. Donohoe, D.R. **Goodlett**, R. Aebersold, J.D. Watts, “Mass Spectrometric Characterization of Proteins Extracted from Jurkat T-Cell Detergent Resistant Membranes” *Proteomics* 2001, 1, 1010.
32. M.G. Katze, B. Kwieciszewski, D.R. **Goodlett**, C.M. Blakely, P. Nedderman, S-L Tan, R. Aebersold “Ser2194 is a highly conserved Major Phosphorylation Site of the Hepatitis C Virus Nonstructural protein NS5A” *Virology* 2000, 278, 501.
31. R. Aebersold and D.R. Goodlett “Proteomics and Mass Spectrometry” *Chemical Reviews* 2001, 101, 269. REVIEW.
30. T. Griffin, D.R. **Goodlett**, R. Aebersold “Pharmaceutical Biotechnology Review” *Current*

Opinions in Biotech. 2001, 12, 607.

29. D.R. **Goodlett**, R. Aebersold, J.D. Watts "Quantitative *in vitro* Kinase Reaction as a Guide for Phosphoprotein analysis by Mass Spectrometry" *Rapid Commun Mass Spectrom.* 2000, 14, 344.

28. D.R. Goodlett, J.E. Bruce, G.A. Anderson, B. Rist, L. Pasa-Tolic, O. Fiehn, R.D. Smith, R. Aebersold "Protein Identification with a Single Accurate Mass of a Cysteine-containing Peptide and Constrained Database Searching" *Anal Chem.* 2000, 72, 1112.

27. M. Heller, D.R. **Goodlett**, J.D. Watts, R. Aebersold "A comprehensive characterization of the T-cell antigen receptor complex composition by microcapillary liquid chromatography-tandem mass spectrometry" *Electrophoresis* 2000, 21, 2180.

26. S.D. Patterson, R. Aebersold and D.R. **Goodlett** "Proteomics - Mass Spectrometry Based Methods for Protein Identification and Phosphorylation Site Analysis" S. Pennington and M. Dunn (eds), Bios Scientific Publishers Ltd. Oxford, 2001, 87.

25. D.R. **Goodlett**, D.C. Gale, S. Guiles and J.B. Crowther *Encyclopedia of Analytical Chemistry* John Wiley & Sons, London, 2001.

24. S.A. Susin, H.K. Lorenzo, N. Zamzami, I. Marzo, G. Brothers, B. Snow, E. Jacotot, P. Costantini, N. Larochette, D.R. **Goodlett**, R. Aebersold, G. Pietu, M.-C. Prevost, D. Siderovski, J. Penninger, G. Kroemer "Molecular characterization of mitochondrial apoptosis-inducing factor." *Nature* 1999, 397, 441.

23. B. Gallis, G.L. Corthals, D.R. **Goodlett**, H. Ueba, F. Kim, S.R. Presnell, D. Figeys, D.G. Harrison, B.C. Berk, R. Aebersold, M. Corson "Identification of flow-dependent endothelial nitric-oxide synthase phosphorylation sites by mass spectrometry and regulation of phosphorylation and nitric oxide production by the phosphatidylinositol 3-kinase inhibitor LY294002" *J. Biol. Chem.*, 1999, 274, 30101.

22. D. Figeys, G.L. Corthals, B. Gallis, D.R. **Goodlett**, A. Ducret, M.A. Corson, R. Aebersold "Data-dependent modulation of solid-phase extraction capillary electrophoresis for the analysis of complex peptide and phosphopeptide mixtures by tandem mass spectrometry: application to endothelial nitric oxide synthase" *Anal. Chemistry* 1999, 71, 2279.

21. D.R. **Goodlett**, A. Timperman, S.P. Gygi, J.D. Watts, G.L. Corthals, D. Figeys, R. Aebersold "Proteome and Protein Analysis" Springer-Verlag, Heidelberg, 2000, 3.

20. R. Aebersold, D. Figeys, S. Gygi, G. Corthals, P. Haynes, B. Rist, Y. Zhang, D.R. **Goodlett** "Towards an integrated analytical technology for the generation of multidimensional protein expression maps" *J. of Prot. Chem.* 1998, 17, 533.

19. N. Lee, D.R. **Goodlett**, H. Marquardt, D.E. Geraghty "HLA-E surface expression depends on binding of TAP-dependent peptides derived from certain HLA class I signal sequences" *J. of Immunology* 1998, 160, 4951.

18. A. Vidyasagar, N. Corkum, A. Jacala, T. Mukherjee, D.R. **Goodlett**, J.B. Crowther, I.W. McConnell, G. Goldstein "Pharmacokinetics and toxicokinetics of an orally active tripeptide, IRI-695, in animals" *Biopharm. Drug Dispos.* 1996, 17, 25.

17. R.D. Smith, H.R. Udseth, J.H. Wahl, D.R. **Goodlett**, S.A. Hofstadler "Capillary electrophoresis-mass spectrometry" *Methods in Enzymology* 1996, 271, 448.
16. D.R. **Goodlett**, P. Abuaf, T. Mukherjee, J.B. Crowther, N. Corkum, G. Goldstein "Peptide chiral purity determination: hydrolysis in deuterated acid, derivatization with Marfey's reagent and analysis using high-performance liquid chromatography-electrospray ionization-mass spectrometry" *J. Chromatogr.A* 1995, 707, 233.
15. D.C. Gale, D.R. **Goodlett**, K.J. Light-Wahl, R.D. Smith "Observation of Duplex-DNA Noncovalent Complexes by electrospray Ionization-Mass Spectrometry" *J. Am. Chem. Soc.* 1995, 116, 6027.
14. D.R. Goodlett, R.R.O. Loo, J.A. Loo, J.H. Wahl, H.R. Udseth, R.D. Smith "A study of the Thermal Denaturation of Ribonuclease S by Electrospray Ionization Mass Spectrometry" *J. Am. Soc. Mass Spectrom.* 1995, 5, 614.
13. R.D. Smith, D.R. **Goodlett**, J.H. Wahl *Handbook of Capillary Electrophoresis* (Ed. J.P. Landers), CRC Press, 1994, 185.
12. R.D. Smith, K.J. Light-Wahl, B.E. Winger, D.R. **Goodlett** "*Electrospray Ionization in Biological Mass Spectrometry: Present and Future*" (Eds. T. Matsuo, Y. Seyama, R.C. Caprioli and M.L. Gross) John Wiley & Sons, 1994, 41.
11. J.H. Wahl, D.R. **Goodlett**, H.R. Udseth, R.D. Smith "Use of small-diameter capillaries for increasing peptide and protein detection sensitivity in capillary electrophoresis-mass spectrometry" *Electrophoresis* 1993, 14, 448.
10. R.D. Smith, J.H. Wahl, D.R. **Goodlett**, S.A. Hofstadler "Capillary Electrophoresis/Mass Spectrometry" *Anal. Chem.* 1993, 65, 574A .
9. D.R. **Goodlett**, J.H. Wahl, H.R. Udseth, R.D. Smith "Reduced Elution Speed Detection for Capillary Electrophoresis-Mass Spectrometry" *J. of Microcolumn Separations*, 1993, 5, 57.
8. D.R. **Goodlett**, D.G. Camp, C.C. Hardin, M. Corregan, R.D. Smith "Direct observation of a DNA quadruplex by electrospray ionization mass spectrometry" *Biol. Mass Spectrom.* 1993, 22 181.
7. R.R.O. Loo, D.R. **Goodlett**, R.D. Smith J.A. Loo "Observation of Noncovalent Ribonuclease S-Protein/S-Peptide Complex by Electrospray Ionization Mass Spectrometry" *J. of American Chem. Soc.* 1993, 115, 4391.
6. J.A. Loo, R.R.O. Loo, D.R. **Goodlett**, R.D. Smith, A.F. Fuciarelli, D.L. Springer, B.D. Thrall, C.G. Edmonds "*Techniques in Protein Chemistry IV*" (Ed. R. H. Angeletti) Academic Press, 1993, 23.
5. M. Saljoughian, P.G. Williams, H. Morimoto, D.R. **Goodlett**, R.B. van Breemen "Tritiated Diimide: A Regio- and Stereo-selective Tritium Labeling Reagent" *The J. Chem. Soc., Chem. Commun* 1993, 4, 414.
4. J.H. Wahl, D.R. Goodlett, H.R. Udseth, R.D. Smith Attomole level capillary electrophoresis mass spectrometric protein analysis using 5 um id capillaries. *Anal. Chem.* 1992, 64, 3194.
3. R.J. Linderman, T. Tshering, K. Venkatesh, D.R. **Goodlett**, W.C. Dauterman, R.M. Roe

“Organophosphorus Inhibitors of Insect Juvenile Hormone Esterase” *Pesticide Biochemistry and Physiology*, 1991, 39, 57.

2. D.R. **Goodlett**, F.B. Armstrong, R.J. Creech, R.B. van Breemen “Formylated Peptides from Cyanogen Bromide Digests Identified by Fast Atom Bombardment Mass Spectrometry” *Anal. Biochem.* 1990, 186, 116.

1. F.F. Bartol, A.A. Wiley, D.R. **Goodlett** “Ovine Uterine Morphogenesis: Histochemical Aspects of Endometrial Development in the Fetus and Neonate” *J. of Animal Science* 1988, 66, 1303.