

Publications Prof. Dr. Martin Elmlinger (by July 2017)

a) Original papers in Laboratory Medicine & Clinical Chemistry 1997-2006

1. Martin W. Elmlinger, Michael B Ranke, Matthias M Weber (1997) Detection of free urinary cortisol by means of immunoassays in the diagnosis of adrenocortical disorders: is extraction of urine necessary? *Clinical Laboratory* 43: 857-862
2. Elmlinger MW, Lambrecht H-G, Kühnel W (1999) Evaluation of an automated chemiluminescence assay to measure serum erythropoietin and determination of age-dependent reference ranges *Journal of Laboratory Medicine* 23: 289-294
3. Elmlinger MW, Gässler N, Weber MM (1999) Detection of free deoxypyridinoline (DPD) in urines of healthy individuals and patients with osteoporosis and osteogenesis imperfecta by a chemiluminescent immunoassay. *Clinical Laboratory* 45: 423-428
4. Ranke MB, Schweizer R, Elmlinger MW, Weber K, Binder G, Schwarze CP, Wollmann HA (2000) Significance of basal IGF-I, IGFBP-3 and IGFBP-2 measurements in the diagnostics of short stature in children. *Hormone Research* 54: 60-68
5. Martin W Elmlinger, Werner Kühnel, Hans-Georg Lamprecht, Michael B Ranke (2001) Reference intervals from birth to adulthood for serum thyroxine (T4), triiodothyronine (T3), freeT3, free T4, thyroxine binding globulin (TBG) and thyrotropin (TSH). *Clinical Chemistry and Laboratory Medicine* 39: 973-979
6. Ranke MB, Schweizer R, Elmlinger MW, Weber K, Binder G, Schwarze CP, Wollmann HA (2001). Relevance of IGF-I, IGFBP-3, and IGFBP-2 measurements during GH treatment of GH-deficient and non-GH-deficient children and adolescents. *Hormone Research* 55: 115-124
7. Elmlinger MW, Kuhnelt W, Ranke MB. Reference ranges for serum concentrations of lutropin (LH), follitropin (FSH), estradiol (E2), prolactin, progesterone, sex hormone-binding globulin (SHBG), dehydroepiandrosterone sulfate (DHEAS), cortisol and ferritin in neonates, children and young adults. *Clin Chem Lab Med.* 2002;40: 1151-1160.
8. Ranke MB, Osterziel KJ, Schweizer R, Schuett B, Weber K, Robbel P, Vornwald A, Blumenstock G, Elmlinger MW. Reference levels of insulin-like growth factor I in the serum of healthy adults: comparison of four immunoassays. *Clin Chem Lab Med.* 2003 ; 41: 1329-34.
9. Elmlinger MW, Dengler T, Weinstock C, Kuehnelt W. Endocrine alterations in the aging male. *Clin Chem Lab Med.* 2003; 41: 934-41.
10. Schutt BS, Weber K, Elmlinger MW, Ranke MB. Measuring IGF-I, IGFBP-2 and IGFBP-3 from dried blood spots on filter paper is not only practical but also reliable. *Growth Horm IGF Res.* 2003; 13: 75-80.
11. Elmlinger MW, Kühnel W, Weber MM, Ranke MB Reference ranges for two automated chemiluminescent assays for serum insulin-like growth factor I (IGF-I) and IGF binding protein 3 (IGFBP-3) *Clin Chem Lab Med.* 2004; 32:859-868
12. Elmlinger MW, Zwirner M, Kühnel W. Stability of insulin-like growth factor (IGF)-I and IGF binding protein (IGFBP)-3 measured by the IMMULITE automated chemiluminescence assay system in different blood specimens. *Clin Lab.* 2005; 51:145-52

13. Elmlinger MW, Kühnel W, Wormstall H, Döller PC 2005 Reference intervals for testosterone, androstenedione and SHBG in healthy females and males from birth until old age. *Clin*
14. Elmlinger MW, Kühnel W, Wormstall H, Döller PC. Reference intervals for testosterone, androstenedione and SHBG levels in healthy females and males from birth until old age. *Clin Lab*. 2005;51(11-12):625-32.
15. Elmlinger MW, Kühnel W, Döller PC. Evaluation of direct and indirect markers to assess the androgen status in healthy males during aging. *Clin Lab*. 2006;52(9-10):491-6.

b) Original papers, Basic Research 1996-2014

16. Elmlinger MW, Wimmer K, Biemer E, Blum WF, Ranke MB, Dannecker GE, (1996) Insulin-like growth factor binding protein 2 is differentially expressed in leukaemic T-and B-cell lines. *Growth Regulation* 6, 152-157
17. Martin W. Elmlinger, Michael S Sanatani, Mathias Bell, Günther E Dannecker, Michael B Ranke (1998) Elevated insulin-like growth factor (IGF) binding protein (IGFBP)-2 and IGFBP-4 expression of leukemic T-cells is affected by autocrine/ paracrine IGF-II action but not by IGF type I receptor expression. *European Journal of Endocrinology* 138: 337-343
18. JL Föll, L Dannecker, C Zehrer, S Hettmer, J Berger, M Elmlinger M, D Niethammer (1998) Activation-dependent expression of the insulin-like growth factor binding protein-2 in human lymphocytes. *Immunology* 94: 173-180
19. Bozzola M, Radetti G, Elmlinger M, Strasburger CJ (1998) Do growth hormone absorption kinetics help to predict the response to treatment? *Archives de Pédiatrie* 5: 322-326
20. Crofton PM, Ahmed SF, Wade JC, Stephen R, Elmlinger MW, Ranke MB, Kelnar CJH, Wallace WHB (1998) Effects of intensive chemotherapy on bone and collagen turnover and the growth hormone axis in children with acute lymphoblastic leukemia. *Journal of Clinical Endocrinol & Metabolism* 83: 3121-3129
21. Martin W Elmlinger, Uta Rauschnabel, Ewa Koscielniak, Jörg Hänze, Michael B. Ranke, Antje Berthold, Jürgen Klammt, Wieland Kiess (1999) Correlation of type-I insulin-like growth factor receptor (IGF-I-R) and insulin receptor-related receptor (IRR) messenger RNA levels in tumor cell lines from pediatric tumors of neuronal origin. *Regulatory Peptides* 84: 37-42
22. Wagner S, Coerper S, Elmlinger MW, Fricke J, Muller J, Ranke MB, Becker HD (1999) Transforming growth factor-beta (TGF-beta) and insulin-like growth factor-I (IGF-I) in human surgical wounds. *Langenbecks Archives of Surgery (Suppl.1)*: 153-157
23. Elmlinger MW., Regine Grund, Michael Buck, Hartmut A Wollmann, Norman Feist, Matthias M. Weber, Christian C. Speer and Michael B. Ranke (1999). Limited proteolysis of the insulin-like growth factor binding protein (IGFBP-)2 by a specific serine protease activity in early breast milk. *Pediatric Research* 46: 76-81 (**Jürgen-Bierich Research Prize awarded**)
24. Binder G, Benz MR, Elmlinger M, Pflaum C-D, Strasburger CJ, Ranke MB (1999) Reduced Human Growth Hormone (hGH) Bioactivity without a defect of the GH-1 Gene in three patients with rhGH responsive growth failure. *Clinical Endocrinology* 51: 89-95

25. Nagel BHP, Mortier W, Elmlinger M, Wollmann HA, Schmitt K, Ranke MB (1999) Short stature in Duchenne muscular dystrophy: a study of 34 patients. *Acta Paediatrica* 88: 62-65
26. Hänze J, Berthold A, Klammt J, Gallaher B, Siebler T, Kratzsch J, Elmlinger M, Kiess W (1999) Cloning and sequencing of the complete cDNA encoding the human insulin receptor related receptor. *Hormone and Metabolic Research* 31: 77-79
27. Crofton PM, Ahmed SF, Wade JC, Elmlinger MW, Ranke MB, Kelnar CJH, Wallace WHB (1999) Effects of a third intensification block of chemotherapy on bone and collagen turnover, insulin-like growth factor I, its binding proteins and short term growth in children with acute lymphoblastic leukemia. *European Journal of Cancer* 35: 960-967
28. Elmlinger MW, Rauschnabel U, Koscielniak E, Weber K, Ranke MB (1999) Secretion of noncomplexed „big“ (10-18 kD) forms of insulin-like growth factor-II by 12 soft tissue sarcoma cell lines. *Hormone Research* 52: 178-185
29. Fottner C, Engelhardt D, Elmlinger MW, Weber MM (2001) Identification and characterization of insulin-like growth factor (IGF)-binding protein expression and secretion by adult human adrenocortical cells: differential regulation by IGFs and adrenocorticotropin (ACTH). *Journal of Endocrinology* 168, 465-474
30. Crofton PM, Ahmed SF, Wade JC, Elmlinger MW, Ranke MB, Kelnar CJ, Wallace WH. 2000 Bone turnover and growth during and after continuing chemotherapy in children with acute lymphoblastic leukemia. *Pediatric Research* 48:490-496
31. Elmlinger MW, Bell M, Schütt, BS, Langkamp M, Kutoh E, Ranke MB 2001 Transactivation of the IGFBP-2 promoter in human tumor cell lines. *Molecular and Cellular Endocrinology* 175: 211-218
32. Martin W Elmlinger, Martin H Deininger, Burkhardt S Schuett, Richard Meyermann, Frank Duffner, Ernst H Grote, and Michael B Ranke (2001) In vivo expression of the insulin-like growth factor binding protein-2 in human gliomas increases with the tumor grade. *Endocrinology* 142: 1652-1658
33. Martin W Elmlinger, Iris Mayer, Doris Schnabel, Burkhardt S Schuett, Dagmar Diesing, Gabriela Romalo, Hartmut A Wollmann, Wolfgang Weidemann, Klaus-Dieter Spindler, Michael B Ranke, Hans-Udo Schweikert (2001) Decreased expression of IGF-II and its binding protein, IGF-binding protein-2, in genital skin fibroblasts of patients with complete androgen insensitivity syndrome compared with normally virilized males. *Journal of Clinical Endocrinology & Metabolism* 86: 4741-4746
34. Wicke C, Wagner S, Trabold O, Muller J, Hunt TK, Ranke MB, Becker HD, Elmlinger MW. Age-dependency of insulin-like growth factors, insulin-like growth factor-binding proteins, and acid labile subunit in plasma and wounds of surgical patients. *Wound Repair Regen.* 2002;10: 360-365.
35. Hoeflich A, Weber MM, Fisch T, Nedbal S, Fottner C, Elmlinger MW, Wanke R, Wolf E. Insulin-like growth factor binding protein 2 (IGFBP-2) separates hypertrophic and hyperplastic effects of growth hormone (GH)/IGF-I excess on adrenocortical cells in vivo. *FASEB J.* 2002;16: 1721-1731.
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Tubingen, Germany. *Horm Res.* 2002; 58: 243-268.

37. Doherty CP, Crofton PM, Sarkar MA, Shakur MS, Wade JC, Kelnar CJ, Elmlinger MW, Ranke MB, Cutting WA. Malnutrition, zinc supplementation and catch-up growth: changes in insulin-like growth factor I, its binding proteins, bone formation and collagen turnover. *Clin Endocrinol (Oxf)*. 2002; 57: 391-399.
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40. Bath LE, Crofton PM, Evans AE, Ranke MB, Elmlinger MW, Kelnar CJ, Wallace WH. Bone Turnover and Growth during and after Chemotherapy in Children with Solid Tumors. *Pediatr Res.* 2003
41. Ranke MB, Maier KP, Schweizer R, Stadler B, Schleicher S, Elmlinger MW, Flehmig B. Pilot study of elevated levels of insulin-like growth factor-binding protein-2 as indicators of hepatocellular carcinoma. *Horm Res.* 2003; 60: 174-80.
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43. Wagner S, Coerper S, Fricke J, Hunt TK, Hussain Z, Elmlinger MW, Mueller JE, Becker HD. Comparison of inflammatory and systemic sources of growth factors in acute and chronic human wounds. *Wound Repair Regen.* 2003; 11: 253-60.
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Reviews:

Ranke MB, Elmlinger MW (1997) Functional role of insulin-like growth factor binding proteins. *Hormone Research* 48 (suppl 4): 9-15

c) Books 2000-2010:

1. MW Elmlinger; Endocrine Cell Culture. Book Review, *Hormone Research* 2000; 52(3):159
2. Elmlinger MW; The IGF System. Molecular Biology, Physiology, and Clinical Application, Book Review. *Hormone Research* 2001; 55(2): 106-107

3. Elmlinger MW. Laboratory Measurements of Hormones and Related Biomarkers: Technologies, Quality Management and Validation. (2010) Michael B Ranke (Ed.), 4th revised and extended edition. ISBN 978-3-8055-9414-1. Karger Verlag, Bern, Switzerland

d) Articles in company magazines & web portals 1997-2010:

- 1) Elmlinger MW (1997) IGFBP-spezifische Proteasen. Firmenzeitschrift der Diagnostics Corporation Ltd.: *Trends* 4: 10-11
- 2) Elmlinger MW, Kühnel W. Cover Story: Hormonal Changes in the aging male. News and Views (DPC, Los Angeles, USA). 2002; 4 (Winter/Spring): 3-6
- 3) Elmlinger MW, Kühnel W. Probing the IGF-Axis. Laboratory support for growth disorders. News & Views (DPC, Los Angeles, USA). 2003; 6 (Winter/Spring): 6-11
- 4) Martin W. Elmlinger. Intelligenter Einsatz geeigneter Biomarker. BioPro Gesundheitsindustrie BW. Jan 2010. <https://www.gesundheitsindustrie-bw.de/de/fachbeitrag/aktuell/intelligenter-einsatz-geeigneter-biomarker/>

d) Articles in plant physiology 1992-1994

- 1) Elmlinger MW, MV, Bolle C, Batschauer A, Oelmueller R, Mohr H. 1994. Coaction of blue light and light absorbed by phyto-chrome in control of glutamine synthetase gene expression in Scots pine (*Pinus sylvestris* L.) seedlings. *Planta* 192, 189–194.
- 2) Elmlinger MW, Mohr H. 1991. Coaction of blueultraviolet-A light and light absorbed by phytochrome in controlling the appearance of ferredoxin-dependent glutamate synthase in the Scots pine (*Pinus sylvestris* L.) seedling. *Planta* 183, 374–380.
- 3) Elmlinger MW, Mohr H. 1992. Glutamine synthetase in Scots pine seedlings and its control by blue light and light absorbed by phytochrome. *Planta* 188, 396–402.