

List of publications

- **Matei E**, Gronenborn AM, ^{19}F Paramagnetic Relaxation Enhancement: A Valuable Tool for Distance Measurements in Proteins. *Angew. Chem. Int. Ed.*, 55: 150–154, (2016). (*Frontispiece-Hot Paper*)
- **Matei E**, Basu R, Furey W, Shi J, Calnan C, Aiken C, Gronenborn AM, Structure and Glycan Binding of a New Cyanovirin-N Homolog. *J. Biol Chem.*, 291(36):18967-76, (2016).
- **Matei E**, André S, Glinschert A, Infantino AS, Oscarson S, Gabius HJ, Gronenborn AM, Fluorinated Carbohydrates as Lectin Ligands: Dissecting Glycan-Cyanovirin Interactions by ^{19}F -NMR Spectroscopy. *Chemistry*. 19(17):5364-74, (2013).
- Wang X, **Matei E**, Deng L, Koharudin L, Gronenborn AM, Ramström O, and Yan M, Sensing lectin-glycan interactions using lectin super-microarrays and glycans labeled with dye-doped silica nanoparticles, *Biosens. Bioelectron.* 47C:258-264, (2013).
- Wang X, **Matei E**, Gronenborn A.M, Olof Ramström O, and Yan M, Direct measurement of glyconanoparticles and lectin interactions by isothermal titration calorimetry. *Anal. Chem.* 84: 4248-4252, (2012).
- Wang X*, **Matei E***, Deng L, Ramström O, Gronenborn A.M, Mingdi Yan, Multivalent Gold Glyconanoparticles with Enhanced Affinity to the Anti-Viral Protein Cyanovirin-N. *Chem. Commun.*, Cambridge, 47(30):8620-2, (2011). *equally contributed authors
- **Matei E**, Louis JM, Jee JG, and Gronenborn AM, NMR Solution Structure of a Cyanovirin Homolog from Wheat Head Blight Fungus. *Proteins*. 79: 1538–1549, (2011).
- **Matei E**, Zheng A, Furey W, Aiken C, Rose J, Gronenborn AM, Anti-HIV activity of defective Cyanovirin-N mutant is restored by dimerization. *J. Biol Chem.* 285:13057-13065, (2010).
- **Matei E**, Furey W, Gronenborn AM, Solution and crystal structures of a sugar binding site mutant of Cyanovirin-N: no evidence of domain-swapping. *Structure*, 16: 1183-1194, (2008).
- Sandström C, Hakkarainen B, **Matei E**, Lahmann M, Oscarson S, Kenne L, Gronenborn AM, Atomic mapping of the sugar binding epitopes in one-site and two-site mutants of Cyanovirin-N by NMR spectroscopy. *Biochemistry*, 47:3625-35, (2008).
- Barrientos LG, **Matei E**, Lasala F, Delgado R, Gronenborn AM, Dissecting carbohydrate Cyanovirin-N binding by structure-guided mutagenesis: functional implications for viral entry inhibition. *Protein engineering design & selection*, 19(12):525-535, (2006).
- **Matei E**, Miron S, Blouquit Y, Duchambon P, Durussel I, Cox JA, Craescu CT, C-terminal Half of Human Centrin 2 Behaves Like a Regulatory EF-hand Domain. *Biochemistry*, 42:1439 -1450, 2003.
- **Matei E**, Pflueger F, Franco A, Cano H, Mora D, and Frank Mari, Structural Analysis of nanomolar quantities of marine neuropeptides using 2D-NMR methods, Proceeding of the 18th American Peptide Symposium, 418-419, July 2003, Boston, (2003).
- Todica M, Simon S, Cosma C, Cozar O, **Matei E**, Algorithm for preliminary evaluation of the correlation time of local dynamics in some polymeric materials. *Talanta*, 53: 247-252, (2000).
- Todica M, Simion S, Ardelean I, Simon V, **Matei E**, NMR and ESR study of local dynamics in polyisoprene- CCl_4 solutions. *Studia U.B.B, Physica*, XLIII, 1, (1998).

Presentations

- **Matei E**, Rohan Basu R, Jiong S, Aiken C, Gronenborn AM Structure and glycan binding of a new Cyanovirin-N homolog. 57th ENC Conference 2016, Pittsburgh, USA (poster).
- Matei E, and **Gronenborn AM**, ^{19}F -NMR Paramagnetic Relaxation Enhancement in Proteins. 56th ENC Conference 2015, Pacific Grove, CA, USA (poster).
- **Matei E**, Anja Glinschert, Angela S. Infantino, Stefan Oscarson, Angela M. Gronenborn, Fluorinated carbohydrates as lectin ligands: dissecting glycan-cyanovirin interactions by ^{19}F -NMR. EUROMAR 2013, Hersonissos, Crete, Greece (oral presentation).
- **Matei E**, André S, Glinschert A, Infantino AS, Oscarson S, Gabius HJ, **Gronenborn AM**, Dissecting Glycan- Cyanovirin Interactions by ^{19}F -NMR. ENC Conference 2013: Pacific Grove, (oral presentation).
- **Matei E**, Anti-HIV activity of Cyanovirin-N lectin. Diaspora in Romanian Scientific Research, Bucharest, September 2010 (oral presentation).
- **Matei E**, Zheng A, Furey W, Christopher A, Rose J, Gronenborn AM, Anti-HIV activity of defective Cyanovirin-N mutants is restored by dimerization. Biophysical Society Annual Meeting, San Francisco, Feb. 2010 (poster).
- **Matei E**, Furey W, Gronenborn AM, Solution and crystal structures of a sugar binding site mutant of Cyanovirin-N: no evidence of domain-swapping. 3rd Advanced Spectroscopies on Biomedical and Nanostructured Systems, Romania, Cluj-Napoca, 2008 (oral presentation).
- **Matei E**, Barrientos L, Louis JM, Gronenborn AM, Interaction between Cyanovirin-N and Glycoproteins as highly viral entry inhibitor. 2nd Advanced Spectroscopies on Biomedical and Nanostructured Systems, Cluj-Napoca, Romania, 2006 (oral presentation).
- **Matei E**, Miron S, Blouquit Y, Duchambon P, Durussel I, Cox JA, Craescu CT, C-terminal Half of Human Centrin 2 Behaves Like a Regulatory EF-hand Domain. Biophysical Society Annual Meeting, Baltimore, Feb 2004 (poster).
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- **Matei E**, Pflueger F, Franco A, Cano H, Mora D, and Mari F, Structural Analysis of nanomolar quantities of marine neuropeptides using 2D-NMR, American Peptide Symposium, 2003, Boston (poster).
- **Matei E**, Blouquit Y, Duchambon P, Craescu CT, Structure determination of a C-terminal domain domain of human centrin 2 by NMR spectroscopy. The 31nd Southeastern Magnetic Resonance Conference, Gainesville, FL, U.S.A., 2001 (poster).
- **Matei E**, Niculescu C, Duchambon P, Blouquit Y, Craescu CT, Centrine 2 humaine: expression, purification et caracterisation d'une nouvelle calciprotéine, 18 ème Reunion Annuelle de la Société Française de Biophysique, Nouan Le Fuzelier, Sept. 2001.
- Todica M, Simon S, Cosma C, Cozar O, **Matei E**, Algorithm for preliminary evaluation of the correlation time or local dynamics in some polymeric materials. Colloquium Spectroscopicum Internationale XXXI, Ankara, Turkey, Sept. 1999 (poster).
- Todica M, Simon S, Ardelean I, **Matei E**, Damian G, ESR study of nitroxide molecules dynamics in polyisoprene CCl_4 solutions, Physics National Conference, Constanta, Romania, Sept. 1998 (poster).