

## Publikationsliste

April 2007

### I. Publikationen in referierten Journalen:

27. “*N*-Aminoimidazole derivatives represent a novel class of GSK3 inhibitors that protect HTLV-1-transformed CD4<sup>+</sup> T cells against HIV-1-induced cell death by sustaining NF-κB activation”, Miguel Stevens, Jan Balzarini, **Irene M. Lagoja**, Maarten Dewil, Ludo Van Den Bosch, Arthur Van Aerschot, Piet Herdewijn, Wim Robberecht, Erik De Clercq, Christophe Pannecouque, submitted for publication **2007**.
26. “Inhibition of Human Immunodeficiency Virus Type 1 Transcription by *N*-Aminoimidazole Derivatives”, Miguel Stevens, Jan Balzarini, **Irene M. Lagoja**, Bernard Noppen, Katrien François, Arthur Van Aerschot, Piet Herdewijn, Erik De Clercq and Christophe Pannecouque, *Virology*, **2007** in press
25. “Some Novel Aminopropyl Nucleoside Phosphonates”, Ding Zhou, **Irene M. Lagoja** and Arthur Van Aerschot, *Nucleosides, Nucleotides & Nucleic Acids*, **2007** in press.
24. “Preparation of Guanine and Diaminopurine from Biuret: Part III”, **Irene M. Lagoja** and Piet Herdewijn, *Chemistry & Biodiversity*, **2007** in press.
23. “Synthesis of Aminopropyl Phosphonate Nucleosides with Purine and Pyrimidine Bases”, Ding Zhou, **Irene M. Lagoja**, Arthur Van Aerschot, and Piet Herdewijn, *Collect. Czech. Chem. Comm.* **2006**, 71(1), 15-34.
22. “Split-Nucleosides, A Novel Class of Purine Bioisosters”, **Irene M. Lagoja**, *Collect. Czech. Chem. Comm. Symposium Series*, **2005**, 7, 173 – 175.
21. “Synthesis and properties of aminopropyl nucleic acids (APNA)”, Ding Zhou, **Irene M. Lagoja**, Jef Rozenski, Roger Busson, Arthur Van Aerschot, and Piet Herdewijn *Chem. & Biochem.*, **2005**, 6 (12), 2298-2304.
20. “A potential pre-biotic route of adenine from hypoxanthine”, **Irene M. Lagoja** and Piet Herdewijn, *Chemistry & Biodiversity*, **2005**, 2, 923-927.
19. “A straightforward Approach towards a New Ribo-Type Cyclohexenyl Nucleosides”, Sara Vijgen, Jing Wang, Arthur Van Aerschot, **Irene M. Lagoja**, and Piet Herdewijn, *J. Org. Chem.* **2005**, 70, 4591 – 4597.
18. “Synthesis and Leukemia Cell Growth Inhibition of a Series of 1,3-Dithiazolylbenzene-Derivatives” **Irene M. Lagoja**, Koen Nauwelaerts, Christine Bal-Mahieu, Michela Pasqualini, Christian Bailly and Piet Herdewijn, *Collect. Czech. Chem. Comm.* **2004**, 69, 1492 - 1497.

17. "A New Type of Very Efficient Photolabile Protecting Groups", Sigrid Bühler, **Irene Lagoja**, Heiner Giegrich, Klaus-Peter Stengele, Wolfgang Pfliederer, *Helv. Chim. Acta* **2004**, *87*, 620-655.
16. "One-Step Synthesis of Hypoxanthine from Glycinamide and Diformylurea" **Irene M. Lagoja** and Piet Herdewijn, *Chemistry and Biodiversity*, **2004**, *1*, 106-111.
15. "*N*-aminoimidazole (NAIM) derivatives inhibiting retroviral replication *via* a yet unidentified mode of action". **Irene M. Lagoja**, Christophe Pannecouque, Arthur Van Aerschot, Myriam Witvrouw, Zeger Debyser, Jan Balzarini, Piet Herdewijn and Erik De Clercq, *J. Med. Chem.* **2003**, *46*, 1546-1553.
14. "A Short Path Synthesis of [<sup>13</sup>C / <sup>15</sup>N] multi-labeled Pyrimidine Nucleosides", **Irene M. Lagoja**, Sylvie Pochet, Valerie Boudou, Roy Little, Eveline Lescrinier, Jef Rozenski and Piet Herdewijn, *J. Org. Chem.*, **2003**, *68*, 1867-1871.
- 13; "Straightforward Synthesis of Labeled and Unlabeled Pyrimidine d<sub>4</sub>N's *via* 2',3'-Diyne-seco-Analogues through Metathesis Reaction". Isabelle Gillaizeau, **Irene M. Lagoja**, Steve P. Nolan, Vincent Aucagne, Jef Rozenski, Piet Herdewijn and Luigi A. Agrofoglio, *Eur. J. Org. Chem.*, **2003**, 666-671.
12. "*N*-aminoimidazole derivatives with anti-HIV activity" **Irene M. Lagoja**, Christophe Pannecouque, Arthur Van Aerschot, Piet Herdewijn, Eric De Clercq, *Antiviral Res.* **2002**, *53*, (3), 3.
11. "1,2,4-Triazole derivatives inhibiting the human immunodeficiency virus type 1 (HIV-1) *in vitro*", **Irene M. Lagoja**, Christophe Pannecouque, Laura Musumeci, Matheus Froeyen, Arthur Van Aerschot, Jan Balzarini, Piet Herdewijn and Erik De Clercq, *Helvetica Chim. Acta.* **2002** (85), 1883 -1892.
10. "α-Homo-DNA and RNA Form a Parallel Oriented Non-α, Non-β type Double Helical Structure". Matheus Froeyen, Eveline Lescrinier, Luc Kerremans, Helmut Rosemeyer, Frank Seela, Birgit Verbeure, **Irene Lagoja**, Jef Rozenski, Arthur Van Aerschot, Roger Busson, and Piet Herdewijn, *Chem. Eur. J.* **2001**, *7*, (23), 5183-5194.
9. "Glycosylation of *N*-Aminoimidazole-2-thiones", **Irene M. Lagoja**, Arthur Van Aerschot, Chris Hendrix, and Piet Herdewijn, *Collect. Czech. Chem. Comm.* **2000**, *65*, 1145-1155.
8. "Synthesis and reactions of 1,5- and 1,3-dialkyl-(*D*-manno-pentitol-1-yl)-1*H*-1,2,4-triazole nucleosides derived from 1-(chloroalkyl-1-aza-2-azoniallene salts", Najim A. Al-Masoudi, Yaseen A. Al-Soud, and **Irene. M. Lagoja**, *Carbohydrate Res.* **1999**, *318*, 67 – 74.
7. "Isolation and Structural Elucidation of 3',4'5'-Trimethoxyflavone from the flowers of *Primula veris*", Christian W. Huck, Christian G. Huber, **Irene M. Lagoja**, Karl-Hans Ongania, Heimo Scherz, Günther K. Bonn, and Michael Popp, *Planta Med.* **1999**, *65*, 491.

6. "Living Polymerization of Novel Conjugatively Spaced Ferrocenylacetylenes", Michael R. Buchmeiser, Norbert Schuler, Gerhard Kaltenhauser, Karl-Hans Ongania, **Irene Lagoja**, Klaus Wurst, and Herwig Schottenberger, *Macromolecules*, **1998**, *31*, 3175 - 3183.

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5. "Oxidative Reduction of Cyclic Thiosemicarbazides: Conversion of 1-Arylamino-2,3-dihydro-1*H*-imidazole-2-thiones into 1-Arylamino-1*H*-imidazoles", Joachim G. Schantl and **Irene M. Lagoja**, *Heterocycles* **1998**, *48* (5), 929 - 938.
4. "Expedient Synthesis of *N*-Substituted 2-Aminothiazoles", Joachim G. Schantl and **Irene M. Lagoja**, *Synthet. Commun.* **1998**, *28* (8), 1451 - 1462.
3. "6,12-Methanodipyrano[4,3-*b*:4,3-*f*]dioxocine-1,7-dione: The Reactivity Towards Nitrogen Nucleophiles", Jan Svetlik, Vladimir Hanus, **Irene M. Lagoja**, and Joachim G. Schantl, *Heterocycles*, **1997**, *45*, (9), 1833 - 1838.
2. "Direct Synthetic Approach to *N*-Substituted 1-Amino-2,3-dihydro-1*H*-imidazole-2-thiones" Joachim G. Schantl and **Irene M. Lagoja**, *Heterocycles*, **1997**, *45*, (4), 691 - 700.
1. "Direct Synthetic Approach to *N*-Aminoimidazole-2-thiones and Imidazole Derivatives", **Irene M. Lagoja** and Joachim G. Schantl, *Molecules*, **1996**, *1*, 116 - 118.

## II. Review Artikel:

4. "Rational drug design using RNA" review, **Irene M. Lagoja** and Piet Herdewijn, in press *Expert Opin. Drug Discovery*, **2007**
3. "Anti-Influenza Agents: Synthesis and Mode of Action", review, Irene M. Lagoja, and Erik De Clercq, *Medical Research Rev.* ., published online 07.12. **2006**.
2. "The Pyrimidine Heterocycle as Constituent of Natural Active Compounds", review, **Irene M. Lagoja**, *Chemistry and Biodiversity*, **2005**, *2*, 1-50.
1. "Chemical Synthesis of <sup>13</sup>C and <sup>15</sup>N labeled Nucleosides", review, **Irene M. Lagoja** and Piet Herdewijn, *Synthesis*, **2002**, *3*, 301-314.

## III. Prüfungsschriften

3. **Irene M. Lagoja**, Habilitationsschrift, Titel "Nitrogen Heterocycles: Synthesis, Isotope Labeling and Biological Activity" (Stickstoffhaltige Heterocyclen: Synthese, Isotopenlabeling und Biologische Aktivitäten), Frankfurt a. Main, **2006**
2. **Irene M. Lagoja**, Doktorarbeit, „*N*-Aminoimidazole zur Generierung nucleophiler Carbene: Synthesen, Reaktionen und Strukturuntersuchungen“, Innsbruck, **1998**.
1. **Irene Lagoja**, Diplomarbeit, "Direkter synthetischer Zugang zu funktionalisierten Imidazolen“, Innsbruck, **1994**.

## IV. Artikel in Büchern, Skripten

7. „Synthesis of Ribonucleosides by Condensation using Trimethylsilyl Triflate”, H. Vorbrüggen, I.M. Lagoja, P. Herdewijn, in “*Current Protocols in Nucleic Acid Chemistry*”, unit CPNC 1.13 (Jan. **2006**)
6. „Organische Chemie für Biologen (Dipl.), für Stud. der Bioinformatik (Dipl.) und für Stud. der Lehramter, J. W. Engels, **I.M. Lagoja**, Frankfurt, **2005**.
5. „Versuche im organisch-chemischen Praktikum, für Biologen (Dipl.) Bioinformatiker (Dipl.) Sek. I und Alternativ-Praktikum für Sek. II“, **I.M. Lagoja**, Gholami, Textbook for undergraduate students, Frankfurt, September, **2004**.
4. “Synthesis of 1,5-Anhydrohexitol Building Blocks for Oligonucleotide Synthesis”, **I.M. Lagoja**, A. Marchand, A. Van Aerschot and P. Herdewijn in “*Current Protocols in Nucleic Acid Chemistry*”, CPNC unit 1.9 September **2003**.
3. „Neuere Synthesetrends in der Heterocyclen Chemie“: (Skriptum zur Vorlesung mit Schwerpunkten auf Tandem-Cyclisierungen, Umlagerungsreaktionen, Metallorganischen Verbindungen in der Heterocyclensynthese, Festphasen- und Biosynthese von Heterocyclen) (Frankfurt) **I.M. Lagoja**, **2003**.
2. „Heterocyclen, Synthesen und ihre Anwendungen in der medizinischen Chemie“ (Skriptum zur Vorlesung mit Schwerpunkt auf den allgemeinen Synthesestrategien von Heterocyclen und deren Anwendung in der medizinischen Chemie) **I.M. Lagoja** (Frankfurt), **2001**.
1. “Heterocycles: Syntheses and Application” (Lecture with primary focus on general strategies of heterocycles and their application in medicinal chemistry), textbook for graduate students **I.M. Lagoja** (Leuven), **2001**.

### **VI. Patentschriften und Patentanmeldungen**

4. “Patent Application *N*-Aminoimidazole Derivatives NAIMS“, **Irene M. Lagoja**, Christophe Pannecouque, Miguel Stephens, Arthur Van Aerschot, Piet Herdewijn, and Erik De Clercq, filing date: 23/12/2005- GB 0526295.1.
3. “Patent Novel Split-Nucleosides”, **Irene M. Lagoja**, Arthur Van Aerschot, Piet Herdewijn, filing date: 02/09/2005, GB 0517908.0.
2. “Patent Application of HIV inhibiting *N*-Aminoimidazole Derivatives“, **Irene M. Lagoja**, Christophe Pannecouque, Arthur Van Aerschot, Piet Herdewijn, and Erik De Clercq, Patent Number WO 2002068395; Priority Application Information: WO 2001-EP2140; **20010223**.
1. “Patent Application of Conversion of Glucopyranosyl Nucleosides to Ribofuranosyl Nucleosides: A Short Path for the Synthesis of Isotopically Labelled Nucleosides“, **Irene M. Lagoja**, Piet Herdewijn, Patent Number WO 2001085220; Priority Application Information: GB 2000-11226, EP 2000-870188; **20000905**.