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## Liste des publications :

### **Functional diversification of Oyster Big Defensins generates antimicrobial specificity and synergy against members of the Microbiota**

*marine drugs*

De San Nicolas, N., Asokan, A., Diego Rosa, R., Voisin, S.N., Travers, M.A., Rocha, G., Dantan, L., Dorant, Y., Mitta, G., Petton, B., Charrière, G.M., Escoubas, J.M., Boulo, V., Pouzadoux, J., **Meudal, H.**, Loth, K., Aucagne, V., Delmas, A.F., Bulet, F., Montagnani, C., Destoumieux-Garzón, D  
Marine Drugs (2022) DOI: 10.3390/md20120745

### **Synthesis of novel 3',3'-cyclic dinucleotide analogues targeting STING protein**

ASIAN JOURNAL  
OF ORGANIC CHEMISTRY

Magand, J., Roy, V., **Meudal, H.**, Rose, S., Quesniaux, V., Chalupska, D., Agrofoglio, L.A  
Asian Journal of Organic Chemistry (2022) DOI: 10.1002/ajoc.202200597

### **Deltex E3 ligases ubiquitylate ADP-ribosyl modification on protein substrates**

ScienceAdvances

Zhu, K., Suskiewicz, M.J., Hloušek-Kasun, A., **Meudal, H.**, Mikoč, A., Aucagne, V., Ahel, D., Ivan Ahel  
Nat, I  
Science Advances. (2022) DOI: 10.1126/sciadv.add4253

### **In vivo spatiotemporal control of voltage-gated ion channels by using photoactivatable peptidic toxins**

nature  
COMMUNICATIONS

Montnach, J., Blömer, L.A., Lopez, L., Filipis, L., **Meudal, H.**, Lafoux, A., Nicolas, S., Chu, D., Caumes, C., Bérout, R., Jopling, C., Bosmans, F., Huchet, C., Landon, C., Canepari, M., De Waard, M  
Nat Commun. (2022) DOI: 10.1038/s41467-022-27974-w

### **Ir-Catalyzed $\beta$ -C(sp<sup>2</sup>)-H Borylation of Enamides - Access to 3,3-Dihalogeno-2-Methoxypiperidines**

EurJOC

Gillaizeau, I., Dondasse, I., Nicolas, C., Sukach, V., **Meudal, H.**, Mimoun, L  
European J Org Chem. (2021) DOI: 10.1002/ejoc.202101302

### **Three-dimensional structures of avian beta-microseminoproteins: insight from the chicken egg-specific beta-microseminoprotein 3 paralog**

FEBS  
openbio

Coste, F., Moreau, T., Labas, V., Chesse, M., Bregeon, M., **Meudal, H.**, Loth, K., Castaing, B., Guyot, N., Rehault-Godbert, S  
FEBS Open Bio. (2021) DOI: 10.1002/2211-5463.13166

### **Metabolomic NMR studies at presymptomatic and symptomatic stages of Huntington's disease on a Drosophila model**

Journal of  
proteome  
research

Bertrand, M., Decoville, M., **Meudal, H.**, Birman, S., Landon, C  
J Proteome Res. (2020) DOI: 10.1021/acs.jproteome.0c00335

## A Venomics approach coupled to high-throughput toxin production strategies identifies the first venom-derived melanocortin receptor agonists

Reynaud, S., Ciolek, J., Degueldre, M., Saez, N.J., Sequeira, A.F., Duhoo, Y., Brás, J.L.A., **Meudal, H.**, Cabo Diez, M., Fernández Pedrosa, V., Verdenaud, M., Boeri, J., Pereira Ramos, O., Ducancel, F., Vanden Driessche, M., Fourmy, R., Violette, A., Upert, G., Mourier, G., Beck-Sickingler, A.G., Mörl, K., Landon, C., Fontes, CMGA., Miñambres Herráiz, R., Rodríguez de la Vega, R.C., Peigneur, S., Tytgat, J., Quinton, L., De Pauw, E., Vincentelli, R., Servent, D., Gilles, N

J Med Chem. (2020) DOI: 10.1021/acs.jmedchem.0c00485

## Structure, function and evolution of Gga-AvBD11, the archetype of a new structural avian-double- $\beta$ -defensin family

Guyot, N., **Meudal, H.**, Trapp, S., Iochmann, S., Silvestre, A., Jousset, G., Labas, V., Reverdiau, P., Loth, K., Hervé, V., Aucagne, V., Delmas, A.F., Rehault-Godbert, S., Landon, C

Proc Natl Acad Sci USA. (2020) DOI: 10.1073/pnas.1912941117

## The ancestral N-terminal domain of big defensins drives bacteria-triggered assembly into antimicrobial nanonets

Loth, K., Vergnes, A., Barreto, C., Voisin, S.N., **Meudal, H.**, Da Silva, J., Bressan, A., Belmadi, N., Bachère, E., Aucagne, V., Cazevielle, C., Marchandin, H., Rosa, R.D., Bulet, P., Touqui, L., Delmas, A.F., Destoumieux-Garzon, D

mBio. (2019) DOI: 10.1128/mBio.01821-19

## Synthesis by native chemical ligation and characterization of the scorpion toxin AmmTx3

Zoukimian, C., **Meudal, H.**, De Waard, S., Ouares, K.A., Nicolas, S., Canepari, M., Bérout, R., Landon, C., De Waard, M., Boturyn, D

Bioorg Med Chem. (2019) DOI: 10.1016/j.bmc.2018.12.009

## The unusual resistance of avian defensin AvBD7 to proteolytic enzymes preserves its antibacterial activity

Bailleul, G., Kravtsoff, A., Joulin-Giet, A., Lecaille, F., Labas, V., **Meudal, H.**, Loth, K., Teixeira-Gomes, A.P., Gilbert, F.B., Coquet, L., Jouenne, T., Brömme, D., Schouler, C., Landon, C., Lalmanach, G., Lalmanach, A.C

PLoSOne. (2016) DOI: 10.1371/journal.pone.0161573

## Macrocyclic Gd(3+) complexes with pendant crown ethers designed for binding zwitterionic neurotransmitters

Oukhatar, F., **Meudal, H.**, Landon, C., Logothetis, N.K., Platas-Iglesias, C., Angelovski, G., Toth, E

Chemistry. (2015) DOI: 10.1002/chem.201500542

## Three-dimensional NMR structure of Hen Egg Gallin (Chicken Ovodefensin) reveals a new variation of the $\beta$ -defensin fold

Herve, V., **Meudal, H.**, Labas, V., Réhault-Godbert, S., Gautron, J., Berges, M., Guyot, N., Delmas, A.F., Nys, Y., Landon, C

J Biol Chem. (2014) DOI: 10.1074/jbc.M113.507046

## Initial insights into structure-activity relationships of avian defensins

Derache, C., **Meudal, H.**, Aucagne, V., Mark, K.J., Cadène, M., Delmas, A.F., Lalmanach, A.C., Landon, C

J Biol Chem. (2012) DOI: 10.1074/jbc.M111.312108

## Synthesis and analytical investigation of C-terminally modified peptide aldehydes and ketone: application to oxime ligation

Bure, C., Marceau, P., **Meudal, H.**, & Delmas, A.F

J Pept Sci. (2011) DOI: 10.1002/psc.1429

## Refined solution structure and backbone dynamics of the archaeal MC1 protein

Paquet, F., Loth, K., **Meudal, H.**, Culard, F., Genest, D., & Lancelot, G

FEBS J. (2010) DOI: 10.1111/j.1742-4658.2010.07927.x

Journal of  
**Medicinal  
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**PNAS**

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**The  
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Journal**



### Molecular requirements for the insecticidal activity of the plant peptide PA1b

Da Silva, P., Rahioui, I., Laugier, C., Jouvensal, L., **Meudal, H.**, Chouabe, C., Delmas, A.F. & Gressent, F  
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### Synthesis and anti-HIV-1 integrase activity of modified dinucleotides

Aubert, Y., Chassignol, M., Roig, V., Mbemba, G., Weiss, J., **Meudal, H.**, Mouscadet, J.F. & Asseline, U  
Eur J Med Chem. (2009) DOI: 10.1016/j.ejmech.2009.09.007



### Primary Structure and Antibacterial Activity of Chicken Bone Marrow-Derived beta-Defensins

Derache, C., Labas, V., Aucagne, V., **Meudal, H.**, Landon, C., Delmas, A.F., Magallon, T. & Lalmanach, A.C  
Antimicrob Agents Chemother. (2009) DOI: 10.1128/AAC.00301-09



### Detection of enzymatic activity by PARACEST MRI : a general approach to target a large variety of enzymes

Chauvin, T., Durand, P., Bernier., M., **Meudal, H.**, Doan, B.T., Noury, F., Badet, B., Beloeil, J.C., Tóth, E  
Angew Chem Int Ed Engl. (2008) DOI: 10.1002/anie.200800809



### NMR studies of telomeric nucleoprotein complexes involving the Myb-like domain of the human telomeric protein TRF2

Bilbille, Y., Paquet, F., **Meudal, H.**, Giraud-Panis, M.J., Lancelot, G  
C R Chimie. (2006) DOI: 10.1016/j.crci.2005.06.016



### Solution structures of stomoxyn and spinigerin, two insect antimicrobial peptides with an a-helical conformation

Landon, C., **Meudal, H.**, Boulanger, N., Bulet, P., Vovelle, F  
Biopolymers. (2006) DOI: 10.1002/bip.20370



### Structure of the zinc finger domain encompassing residues 13-51 of the nucleocapsid protein from simian immunodeficiency virus

Morellet, N., **Meudal, H.**, Bouaziz, S., Roques, BP  
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### Development of potent inhibitors of botulinum neurotoxin type B

Anne, C., Turcaud, S., Quancard, J., Teffo, F., **Meudal, H.**, Fournie-Zaluski, M.C., Roques, BP  
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### Thio-derived disulfides as potent inhibitors of botulinum neurotoxin type B : Implications for zinc interaction

Anne, C., Blommaert, A., Turcaud, S., Martin, A.S., **Meudal, H.**, Roques, BP  
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### Toward an optimal joint recognition of the S-1' subsites of endothelin converting enzyme-1 (ECE-1), angiotensin converting enzyme (ACE), and neutral endopeptidase (NEP)

Inguibert, N., Coric, P., Poras, H., **Meudal, H.**, Teffot, F., Fournie-Zaluski, M.C., Roques, BP  
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### Replacement of glycine with dicarbonyl and related moieties in analogues of the C-terminal pentapeptide of cholecystokinin : CCK2 agonists displaying a novel binding mode

Bellier, B., Million, M.E., DaNascimento, S., **Meudal, H.**, Kellou, S., Maigret, B., Garbay, C  
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**Phosphinic derivatives as new dual enkephalin-degrading enzyme inhibitors : Synthesis, biological properties, and antinociceptive activities**

Chen, HX., Noble, F., Mothe, A., **Meudal, H.**, Coric, P., Danascimento, S., Roques, BP., George, P., Fournie-Zaluski, MC

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**Investigation of subsite preferences in aminopeptidase A (EC 3.4.11.7) led to the design of the first highly potent and selective inhibitors of this enzyme**

David, C., Bischoff, L., **Meudal, H.**, Mothe, A., De Mota, N., DaNascimento, S., Llorens-Cortes, C., Fournie-Zaluski, MC., Roques, BP

J Med Chem. (1999) DOI: 10.1021/jm9903040

**Nucleomimetic strategy for the inhibition of HIV-1 nucleocapsid protein NCp7 activities**

Druillenec, S., **Meudal, H.**, Roques, BP., Fournie-Zaluski, MC

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**Metallopeptidase inhibitors of tetanus toxin : A combinatorial approach**

Martin, L., Cornille, F., Turcaud, S., **Meudal, H.**, Roques, BP., Fournie-Zaluski, MC

J Med Chem. (1999) DOI: 10.1021/jm981066w

**Novel constrained CCK-B dipeptoid antagonists derived from pipercolic acid**

Bellier, B., Da Nascimento, S., **Meudal, H.**, Gincel, E., Roques, BP., Garbay, C

Bioorg Med Chem Lett. (1998) DOI: 10.1016/s0960-894x(98)00231-5

**Characterization and inhibition of aminopeptidase A by  $\alpha$ -mercapto- $\beta$ -amino acyl dipeptides**

David, C., Bischoff, L., **Meudal, H.**, Llorens-Cortes., C., Roques, BP., Fournie-Zaluski, MC

Lett Pept Sci. (1997) DOI: 10.1023/a:1008894115205

**Synthesis and biological properties of new constrained CCK-B antagonists : Discrimination of two affinity states of the CCK-B receptor on transfected CHO cells**

Bellier, B., McCortTranchepain, I., Ducos, B., Danascimento, S., **Meudal, H.**, Noble, F., Garbay, C., Roques, BP

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**2,4-Dinitrophenyl 4-methoxybenzyl disulfide : A new efficient reagent for the electrophilic sulfenylation of  $\beta$ -amino ester enolates**

Bischoff, L., David, C., Martin, L., **Meudal, H.**, Roques, BP., FournieZaluski, MC

J Org Chem. (1997) DOI: 10.1021/jo9623853

**Design of orally active dual inhibitors of neutral endopeptidase and angiotensin-converting enzyme with long duration of action**

Fournie Zaluski, MC., Coric, P., Thery, V., Gonzalez, W., **Meudal, H.**, Turcaud, S., Michel, JB., Roques, BP

J Med Chem. (1996) DOI: 10.1021/jm950783c

**Optimal recognition of neutral endopeptidase and angiotensin-converting enzyme active sites by mercaptoacyldipeptides as a means to design potent dual inhibitors**

Coric, P., Turcaud, S., **Meudal, H.**, Roques, BP., Fournie Zaluski, MC

J Med Chem. (1996) DOI: 10.1021/jm950590p

**Synthesis of constrained 4-(phosphonomethyl)phenylalanine derivatives as hydrolytically stable analogs of O-phosphotyrosine**

Liu, WQ., Carreaux, F., **Meudal, H.**, Roques, BP., Garbay Jaureguiberry, C

Tetrahedron. (1996) DOI: 10.1016/0040-4020(96)00085-3

**Investigation of the structural parameters involved in the delta-opioid selectivity of several families of families opioid-peptides**

Guis, C., Bruetschy, L., **Meudal, H.**, Roques, BP., Gacel, GA

Int J Pept Prot Res. (1993) DOI: 10.1111/j.1399-3011.1993.tb00480.x