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## Liste des publications:

- Angewandte International Edition Chemie**  
**Photo-isomerization of azobenzene-extended charybdotoxin for the optical control of Kv1.2 potassium channel activity**  
Achouba, Y., Peres, B., Ascoët, S., **Meudal, H.**, Caumes, C., Zoukimian, C., Millet, H., Choteau-Bodor, M., Carvalhosa, C., Croyal, M., Bouchama, F., Wulff, H., Téletchéa, S., Bérout, R., Ishow, E., Landon, C., Boumendjel, A., Montnach, J., De Waard, M  
Angew Chem Int Ed Engl. (2025) DOI: 10.1002/ange.202423278
- Dalton Transactions**  
**Investigation of Ln<sup>3+</sup> complexation by a DOTA derivative substituted by an imidazothiadiazole: synthesis, solution structure, luminescence and relaxation properties**  
Caillet, E., Numes, L., Eliseeva, S., Ndiaye, M., Isaac, M., Pallier, A., Morfin, J.F., **Meudal, H.**, Petoud, S., Routier, S., Platas-Iglesias, C., Buron, F., Bonnet, C  
Dalton Transactions (2024) DOI: 10.1039/D4DT00533C
- Circulation Research**  
**Optical control of cardiac rhythm by in vivo photoactivation of an ERG channel peptide inhibitor**  
Montnach, J., Millet, H., Persello, A., **Meudal, H.**, De Waard, S., Mesrica, P., Ribeiro, B., Richard, J., Hivonnait, A., Tessier, A., Lauzier, B., Charpentier, F., Mangoni, M.E., Landon, C., Jopling, C., De Waard, M  
Circulation Research (2023) DOI: 10.1161/CIRCRESAHA.123.322880
- biomedicine AND PHARMACOTHERAPY**  
**Structure-function relationship of new peptides activating human Na<sub>v</sub>1.1**  
Lopez, L., De Waard, S., **Meudal, H.**, Caumes, C., Khakh, K., Peigneur, S., Oliveira-Mendes, B., Lin, S., De Waele, J., Montnach, J., Cestèle, S., Tessier, A., Johnson, J.P., Mantegazza, M., Tytgat, J., Cohen, C., Bérout, R., Bosmans, F., Landon, C., De Waard, M  
Biomedicine & Pharmacotherapy (2023) DOI: 10.1016/j.biopha.2023.115173
- marine drugs**  
**Functional diversification of Oyster Big Defensins generates antimicrobial specificity and synergy against members of the Microbiota**  
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
- ASIAN JOURNAL OF ORGANIC CHEMISTRY**  
**Synthesis of novel 3',3'-cyclic dinucleotide analogues targeting STING protein**  
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

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

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

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

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

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

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-Sickingher, 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

Zoukian, 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 PLOS One. (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, NK., 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, KJ., Cadène, M., Delmas, AF., Lalmanach, A.C., Landon, C  
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## 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  
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## Refined solution structure and backbone dynamics of the archaeal MC1 protein

Paquet, F., Loth, K., **Meudal, H.**, Culard, F., Genest, D., & Lancelot, G  
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## Molecular requirements for the insecticidal activity of the plant peptide PA1b

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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  
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## 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  
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## 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, BT., Noury, F., Badet, B., Beloeil, JC., 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, MJ., Lancelot, G  
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## Solution structures of stomoxyn and spinigerin, two insect antimicrobial peptides with an $\alpha$ -helical conformation

Landon, C., **Meudal, H.**, Boulanger, N., Bulet, P., Vovelle, F  
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## 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, MC., 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, AS., **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)**

Inguimbert, N., Coric, P., Poras, H., **Meudal, H.**, Teffot, F., Fournie-Zaluski, MC., 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, ME., 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  
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**Nucleomimetic strategy for the inhibition of HIV-1 nucleocapsid protein NCp7 activities**

Druillennec, 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  
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**Novel constrained CCK-B dipeptoid antagonists derived from pipecolic acid**

Bellier, B., Da Nascimento, S., **Meudal, H.**, Gincel, E., Roques, BP., Garbay, C  
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**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  
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**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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Bischoff, L., David, C., Martin, L., **Meudal, H.**, Roques, BP., FournieZaluski, MC  
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**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  
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**Optimal recognition of neutral endopeptidase and angiotensin-converting enzyme active sites by mercaptoacyldipeptides as a means to design potent dual inhibitors**

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

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**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  
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