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(résumés)

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(abstracts)

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KLEIN*, J.M., de KLEIJN**, D.P.V., WEIDEMANN*, W. - Cloning and sequence analysis of cDNA encoding the moult-inhibiting hormone (MIH) of *Carcinus maenas* and detection of MIH-mRNA in the eyestalk using non-radioactive in situ hybridization.

A widely accepted contemporary model of moult control in decapod crustaceans proposes that a moult-inhibiting hormone (MIH) is produced by neurosecretory neurones in the eyestalk and secreted from axon terminals in the sinus gland. It inhibits synthesis of ecdysteroids by the Y-organ, as shown by *in vitro* experiments. Based on the amino acid sequence of the MIH of *Carcinus maenas* (Webster, 1991) two degenerated oligonucleotide primers were synthesized and used in the polymerase chain reaction (PCR). Using cDNA from a library produced from X-organ RNA as a template, the specific cDNA between the primers was amplified, cloned and sequenced. This strategy revealed the cDNA sequence of the MIH molecule. Currently, experiments are being undertaken to elucidate the complete MIH precursor. Furthermore we performed a non radioactive *in situ* hybridization procedure for the localization of mRNA encoding the MIH in the eyestalk of *Carcinus maenas*. Localization of the mRNA in the MIH perikarya was obtained with a digoxigenin-labelled complementary RNA (cRNA) probe on sections of Bouin fixed eyestalks which were pre-treated with pepsin/HCl. Combination with an immunocytochemical staining on alternate sections, using a polyclonal antibody against MIH, confirmed the specificity of the reaction. Currently, similar experiments with cRNA probes for the localization of mRNA encoding the crustacean hyperglycemic hormone (CHH) are in progress. It is our objective to investigate whether the genes of these two homologous neuropeptides are expressed together or in separate XO-cell subpopulations.

WEBSTER, S.G., 1991. *Proc. R. Soc. Lond.*, B, **244**: 247-252.

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KOUKOURAS, A., DOUNAS, C., VOULTSIADOU-KOUKOURA, E. - Decapod crustacean fauna associated with the coral *Cladocora caespitosa* (Linnaeus) in the Eastern Mediterranean.

The results of the analysis of the fauna found in 14 colonies of the scleractinian species *Cladocora caespitosa* (Linnaeus, 1767) collected in two localitites (one at a depth of 3-5 m and the other at 16-19 m) revealed that numerous benthic species (more than 220) are associated with this coral. 22 of these species (given in a list) are decapod crustaceans.

Correlations between the volume and the weight of the host colonies on one hand, and the total number of species and individuals and the biomass of the decapod species on the other, is given and discussed. The decapod faunal affinity among all specimens (colonies) collected in the two localities, is also investigated.

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