GENERAL AND COMPARATIVE
ENDOCRINOLOGY

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DESCRIPTION

General and Comparative Endocrinology publishes articles concerned with the many complexities of vertebrate and invertebrate endocrine systems at the sub-molecular, molecular, cellular and organismal levels of analysis. Although by no means comprehensive, submission of manuscripts in the following areas of endocrine science are encouraged:

- endocrine regulation and interactions in physiological processes ("systems" biology - reproduction, body fluid homeostasis, skeletal and calcium homeostasis; gastrointestinal function; integumentary function; neurophysiology; cardiovascular function etc);
- endocrine pharmacology;
- the role of gene expression in endocrine systems;
- behavioral endocrinology;
- developmental endocrinology;
- growth factors;
- endocrine- environmental interactions;
- immuno-endocrine interactions;
- neuroendocrinology, neuropeptides, neurotransmitters;
- hormonal receptors;
- molecular evolution of hormones and gene families.

Comparative Molecular Analyses
- Genomics
- Proteomics
- Transcriptomics
- Metabolomics

Manuscripts that advance understanding within and between these broad disciplines are especially encouraged.

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INTRODUCTION

General and Comparative Endocrinology publishes articles concerned with the many complexities of vertebrate and invertebrate endocrine systems at the sub-molecular, molecular, cellular and organismal levels of analysis. Although by no means comprehensive, submission of manuscripts in the following areas of endocrine science are encouraged:

- endocrine regulation and interactions in physiological processes ("systems" biology - reproduction, body fluid homeostasis, skeletal and calcium homeostasis; gastrointestinal function; integumentary function; neurophysiology; cardiovascular function etc);
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- neuroendocrinology, neuropeptides, neurotransmitters;
- hormonal receptors;
- molecular evolution of hormones and gene families.

Comparative Molecular Analyses
- Genomics
- Proteomics
- Transcriptomics
- Metabolomics

Manuscripts that advance understanding within and between these broad disciplines are especially encouraged.

General and Comparative Endocrinology will consider for publication of research articles that address endocrinology in its widest sense, i.e. both among, and within, living organisms - vertebrate, invertebrate and plant - including their evolutionary antecedents. Original and novel information in acute, and in the longer term, evolutionary adaptive homeostasis are of especial interest to the journal.

The European Society for Comparative Endocrinology, North American Society for Comparative Endocrinology, The Division of Comparative Endocrinology of the Society for Integrative and Comparative Biology, the Asia and Oceania Society for Comparative Endocrinology and the Japan Society for Comparative Endocrinology are affiliated to General and Comparative Endocrinology.

Types of article

**Regular article** - Full-length original research papers, reporting novel findings in all endocrinology related fields.

**Short Communications** – these are articles that present a new technique, idea or concept and are typically 10 double spaced pages in length.

**Communications in Comparative Molecular Analyses** - these are original research manuscripts ranging from 10 to 24 double spaced pages which report studies deploying any kind of "omics" technologies, which are relevant to the endocrine literature (i.e., results of small to high throughput studies). Manuscripts can report the analysis of primary data or in silico analysis or meta-analysis of data deposited in databases and should frame the significance of the data in light of comparative endocrinology and endocrine function.

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Material and methods Guidelines for Immunohistochemistry & RTqPCR assays

1. Immunohistochemistry
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2. What to look for when evaluating reviewers comments about real time quantitative PCR (RTqPCR) assays
There is considerable debate and an ever growing literature about the "best way" to perform real time quantitative PCR (RTqPCR). One publication which gives extensive and helpful guidelines about RTqPCR is Nolan et al., 2006 Nature protocols 1; 1559 and if you are looking for formal guidelines and recommendations consult Clinical Chemistry (Bustin et al., 2009 55, 611). Some simple guidelines:
1. The Dnase treatment and protocol should be indicated.
2. The primers chosen for reverse transcription should be indicated.
3. The RTqPCR primers and probe sequence (if used), the amplicon size along with the mix and supplier should be indicated.
4. The sequence accession number should be provided.
5. Steps taken to optimize and validate RTqPCR assays should be indicated (eg. primer concentration, MgCl2 concentration, dNTP concentration, melt temperature) and melting curve dynamics and absence of primer dimers should be confirmed.
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