

Publications (in review by Integrated Environmental Assessment and Management - IEAM)

1. *Recommended approaches to the scientific evaluation of environmental hazards and risks of endocrine active substances* (Matthiessen *et al*, in review).
2. *Challenges in assigning endocrine-specific modes of action: recommendations for researchers and regulators* (Mihaich *et al.*, in review);
3. *Uncertainties in biological responses that influence hazard and risk approaches to the regulation of endocrine active substances* (Parrott, *et al*, in review);
4. *Current limitations and a path forward to improve the assessment of endocrine active substances* (Coady *et al.* in review);
5. *Population level adverse effects of endocrine active substances* (Marty *et al*, in review).

5つの論文が今、出版の許可が出ています。IEAMIによってレビュー中であります。

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1. *Recommended approaches to the scientific evaluation of environmental hazards and risks of endocrine active substances* (Matthiessen *et al*, in review).

This is essentially a summary of the whole workshop, in particular presenting the scheme for making decisions about whether conducting environmental risk assessment of an endocrine disrupting substance is sufficiently precautionary

1本目、これは私がやっているものなのですが、内分泌活性化学物質の環境ハザード及び環境リスクを科学的に評価するために推奨される対応方策。

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2. *Challenges in assigning endocrine-specific modes of action: recommendations for researchers and regulators* (Mihaich *et al.*, in review)

This looks at the difficulties which may be encountered in firmly diagnosing a chemical as an endocrine disrupting substance e.g. how to distinguish endocrine disruption from superficially similar effects caused by systemic toxicity.

2つ目は、作用機構を確証する取組。

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3. *Uncertainties in biological responses that influence hazard and risk approaches to the regulation of endocrine active substances* (Parrott, et al., in review)

This addresses issues of how to interpret biological responses to endocrine disrupting substances e.g. what are the appropriate windows of sensitivity and what types of delayed response should be looked for?

そして3つ目、これはParrottらがヒトでやっていますが、これはハザード評価及びリスク評価。

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4. Current limitations and a path forward to improve the assessment of endocrine active substances (Coady et al. in review);

This discusses issues connected with screening and testing of endocrine-active substances, and points the way towards more efficient and sensitive methods

そして4番目、Coadyらによって実施されていますが、これは評価の現状における限界と改良ということで方法論に関して。

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5. *Population level adverse effects of endocrine active substances* (Marty *et al*, in review).

Finally, this paper considers how to predict population-level adverse effects on the basis of laboratory test methods.

そして、Martyらがやっている個体群レベルでの有害影響の論文があります。

Conclusions

- Evaluating chemicals for their potential to cause endocrine disruption is complicated and expensive
- However, tools for measuring the environmental effects of EATS EDSs are now largely in place, as are methods for their interpretation and for extrapolation to populations
- Furthermore, in most cases it is possible to establish safe levels – EDSs *do* have threshold concentrations for populations
- The overall conclusion of the EHRA SETAC Pellston Workshop™ was that if environmental exposure, effects on relevant taxa/life-stages, delayed effects and dose/concentration-response relationships are adequately characterized, then conducting environmental risk assessment of EDSs is scientifically sound
- We hope that our outline decision-making scheme for EDSs will be used by risk assessors as the basis for their in-house procedures

まとめになります。

化学物質が有する潜在的内分泌かく乱作用を評価することは、単純ではなく、高いコストを要するという事です。非常にハードルが高いということです。

そして、アンドロゲン、エストロゲン、甲状腺関連だけに限定しての話なんですが、環境中影響を測定するための手法は、おおむね整いつつあるということでもあります。

ほとんどの場合においては安全レベルを設定することが可能であります。EDCs類は閾値濃度を個体群に対して持っています。もちろん個人であったり個体においてはそれをデモンストレーションすることはできません。

そして、環境中のばく露、関連生物種、ライフステージへの影響、遅発性影響、用量濃度の反応が適切に特徴化することが可能なら、環境リスク評価実施は科学的にふさわしいということになります。

そして、この意思決定スキームが世界中の規制当局によって採用され、そして個々のローカルニーズに対して適用されることを望みます。



EHRA SETAC Pellston Workshop Steering Committee
Annegaike Leopold (annegaike@gmail.com) (Co-Chair)
Mike Roberts (mroberts.toffees@outlook.com) (Co-chair)
Peter Matthiessen
Jenny Odum
Gary Ankley
Malyka Galay-Burgos
Patrick Guiney
Henrik Holbech
Tom Hutchinson
Taisen Iguchi
Karen Kidd
Anapuma Kumar
Ellen Mihaich
Lisa Ortego
Bruce Vigon
Lennart Weltje
James Wheeler

ワークショップの推進委員会ですが、Leopoldが共同議長、Mike Robertsが共同議長、この人はイギリス人、Leopoldさんはオランダ人です。

The Participants!



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いろいろなワークショップがありますが、参加者です。日本人の同僚の皆様も参加していらっしゃいます。井口さん、また今日この会場にいらっしゃる方が何人か写っています。



Thank you for listening 😊

Contact me at:

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以上です。御清聴ありがとうございました。