

**OFFICE OF NEW DRUGS**

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**Management of the Pharmacology and Toxicology Coordinating Committee Nonclinical Pharmacogenomics Subcommittee**

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**PURPOSE**

- This MAPP describes the roles and responsibilities of the Pharmacology and Toxicology Coordinating Committee Nonclinical Pharmacogenomics Subcommittee (PTCC NPSC), the structure and function of the subcommittee, the procedures for designating members to serve on the subcommittee, the responsibilities of those designated to serve on the subcommittee, and the subcommittee procedures.
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**BACKGROUND**

- Pharmacology committees have been established in the Center for Drug Evaluation and Research (CDER) to develop regulatory guidance for use by sponsors and applicants, to keep current with scientific knowledge to address emerging technical issues, and to aid in the review process. The PTCC NPSC was established in response to the rapidly evolving field of **pharmacogenomics (PG)** and the ensuing development of the field of **toxicogenomics (TG)**. The PG approach encompasses a number of fields including genome-scale RNA expression (transcriptomics), cell and tissue-wide protein expression (proteomics), metabolic profiling (metabonomics), and bioinformatics. Perhaps one of the most promising features of pharmacogenomics is the potential for identifying and developing new treatments. As a result, CDER divisions will be faced with the challenges of reviewing, evaluating, and making recommendations on PG studies that will be conducted at the preclinical and clinical phases of drug development. The Nonclinical

Pharmacogenomics Subcommittee (NPSC) will seek to disseminate the appropriate guidance on PG submissions to both CDER reviewers and the pharmaceutical industry by serving as a resource to the Pharmacology and Toxicology Coordinating Committee (PTCC) and to the Center on scientific and regulatory aspects of emerging nonclinical PG issues. NPSC will also seek to develop guidance, address emerging technical problems, and respond to scientific inquiries from CDER divisions. The NPSC was created as a CDER subcommittee under the PTCC charter in May 2002.

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## DEFINITIONS

- **Pharmacogenomics (PG):** The application of genomic technologies to disease susceptibility, drug discovery, pharmacological function, disposition, efficacy, and toxicity.
  - **Toxicogenomics (TG):** The study of gene expression patterns after exposure to a compound and the use of patterns as early predictions of adverse events in humans.
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## OBJECTIVES

### The Objectives of the PTCC NPSC are to:

- Recommend standards for the submission and review of nonclinical PG data sets from sponsors.
  - Develop internal consensus regarding the added value, best interpretations, and drug development and regulatory review implications of nonclinical PG data.
  - Develop Center expertise and an appropriate infrastructure to support the review of nonclinical PG/TG data. Due to the rapidly emerging nature of this field, the objective of the subcommittee may continue to evolve with time.
  - Develop specific initiatives to keep committee members abreast of the latest developments in PG (e.g., laboratory visits, seminar series, and electronic journal club).
  - When appropriate, assist other subcommittees and Center groups in developing educational opportunities in PG for pharmacology/toxicology reviewers and other members of the Center.
  - Interface with other CDER review disciplines (e.g., clinicians, statisticians) and other centers within the Agency in recommending review standards.
  - Provide forums for communication to regulated industry on PG.
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- Obtain expertise, as needed, to evaluate scientific developments in areas affected by PG.
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## ORGANIZATION

### Oversight

- The PTCC provides oversight for the PTCC NPSC.

### Membership

- **Chair/Co-Chair:** Two Co-Chairs are selected by the members of the subcommittee, with the concurrence of the PTCC, based upon their qualifications, expertise, current workload, and organizational and management skills. At least one Co-Chair should be a full voting member of the PTCC. Each Co-Chair serves for a *2-year term*. However, the NPSC and PTCC may modify the length of a given term. When a Chair resigns, the subcommittee members will select a new Chair with the concurrence of the PTCC.
- **Members:** Members are chosen based upon their qualifications, expertise and interest in the field, their workload, and the demands on their time caused by membership on other committees. Invitations for membership are offered to persons in the Offices of Drug Evaluation (ODEs), Office of Testing and Research (OTR), and other interested CDER offices or FDA centers as appropriate to the subcommittee goals and expertise. Core members will be researchers or reviewers in pharmacology and toxicology in CDER and will be selected from a list of volunteers requesting membership. The Chair of CDER's Interdisciplinary Pharmacogenomics Working Group or designee will also qualify for membership. The subcommittee will have broad representation and consist of approximately 16 members (including the Chairs). Membership on the subcommittee may be rotated periodically, and may be reviewed annually by the PTCC. To facilitate productivity of the subcommittee, smaller ad hoc working groups may be formed to address specific issues. A member who does not attend three consecutive meetings may be asked to resign from the committee unless one of the Co-Chairs is informed of extenuating circumstances.
- **Executive Secretary:** Two Executive Secretaries (Exec Sec), a primary and a secondary, are selected by the Co-Chairs to serve for a 1-year renewable term. Upon termination of the primary Exec Sec term at the end of the first year, the secondary Exec Sec becomes the primary Exec Sec and a new secondary Exec Sec will be selected.

**RESPONSIBILITIES****The PTCC NPSC will:**

- Serve as a source of advice and assistance to the PTCC in responding to CDER staff on matters pertaining to PG/TG data submissions and reviews.
- Work through the PTCC to develop and disseminate, as needed, policies and procedures on interpreting PG-related issues pertaining to their use in drug development.
- Prepare responses, as needed, to questions from the pharmaceutical industry within the area of expertise including PG, TG, proteomics, and metabonomics. Responses will be shared with all divisions during monthly meetings of the PTCC by the team leader Co-Chair of the NPSC who is a permanent member of the PTCC.
- Prepare written comments for guidances that address nonclinical genomics.
- Interface with industry groups involved in PG and TG activities.
- Provide consultation when requested by the subcommittee.

**The Chair and Co-Chair of the PTCC NPSC will:**

- Schedule and conduct meetings of the committee as required for fulfilling the committee's objectives.
- Ensure that all copies of all records of subcommittee meetings and other deliberations of the subcommittee are placed in a file maintained by the Exec Sec.
- Create and maintain, with the assistance of the committee members, a Task List for the committee describing major tasks the committee is undertaking, projected milestones and completion dates, and the current status of each project.
- Develop proposed time frames for completion of projects and forward them to the PTCC for concurrence. The PTCC may amend the priorities of the projects assigned, as necessary.
- Report semiannually to the PTCC on the activities of the committee. In preparation for each of these semiannual meetings, the Co-Chairs should provide to the PTCC, at least a week in advance of the meeting, an updated Task List, a summary of achievements since the last report to the PTCC, a projection of activities for the next 6 months, and a list of issues for which PTCC input is needed.
- Obtain input on policy documents from the PTCC prior to review by or *negotiations with* organizations outside of CDER or the FDA (e.g., PhRMA, ILSI).

**The Executive Secretary will:***Primary:*

- Schedule meetings, in consultation with the Co-Chairs, of the subcommittee as required for fulfilling the subcommittee's objectives.
- Prepare an agenda, in consultation with the Co-Chairs, and distribute it to the subcommittee members by e-mail in advance of each subcommittee meeting.
- Prepare brief minutes of each meeting and distribute them electronically by e-mail or post them on a shared file server.
- Maintain copies of all records of subcommittee meetings and other deliberations of the subcommittee on a shared file server.

*Secondary:*

- Serve as an Exec Sec in lieu of the primary secretary.
- Serve as first editor of the minutes of the meetings taken by the primary Exec Sec.
- Assume full responsibilities as a primary Exec Sec on the second year of the term, if so directed by the Co-Chairs.

**The Members of the PTCC NPSC will:**

- Present their division's/office's views and experiences on PG and related fields.
  - Communicate with their division/office management about the deliberations of the subcommittee.
  - Attend meetings regularly, review materials in advance of meetings, and have a general willingness to participate in committee activities. The Co-Chairs may replace committee members who miss three consecutive meetings without extenuating circumstances.
  - Accept or reject additional responsibilities designated by the Chair and Co-Chair.
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**PROCEDURES**

- **Meetings:** Meetings are held once per month at a mutually convenient time in a room reserved in advance at a location convenient for all members. Meetings will rotate to locations where current members report for duty. Meeting locations and schedules will be made available to all members by e-mail.

- **Meeting Minutes:** Minutes of all meetings will be written by the Exec Sec, or designate, and made available to all members by e-mail.
  - **Membership:** A list of current subcommittee members will be made available to all members by e-mail. The list will be given by the Co-Chairs to the Exec Sec of the PTCC and maintained by the PTCC.
  - **Objectives:** Changes in subcommittee purpose and/or objectives will be submitted to the PTCC for concurrence.
  - **Disbandment:** The subcommittee will be disbanded when it has fulfilled its objectives, or the PTCC has determined that the subcommittee is not fulfilling a necessary function in the Center.
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**EFFECTIVE DATE**

This MAPP is effective upon date of publication.