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## Philip Morris U.S.A. R&D

To: Dr. Haussmann  
cc: Dr. Reininghaus  
Company: INBIFO

From: Gerry Nixon  
Company: Philip Morris

Date: 27 April 1994  
Pages including this cover page: 3

### Comments:

Dear Hans-Juergen,

As Dr. Reininghaus discussed with you on the phone earlier today, here is a preliminary list of potential topics for the paper which Cathy has requested on the pharmacological effects of nicotine/smoking. This document should be in layman's terms, and should include:

- classical, recent and key studies
- in vivo and in vitro
- comparisons to other substances such as caffeine or opiates when available
- magnitude of effects
- significance of effects
- internal studies

Please review the enclosed list and add any topics which seem to be missing, and feel free to suggest groupings for discussion of related subject areas to help in organizing the paper. Also, any suggestions as to who at INBIFO might be best suited to write particular sections, or at least to contribute significantly to the substance and direction for the topic(s) would be appreciated.. Cathy has asked for an outline by Friday, April 29, so there is not much time to consider these options.

I will look forward to hearing from you soon. Thank you in advance for your input into this work.

Sincerely,

  
Gerry Nixon

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psychomotor performance

CNS    attention  
         memory  
         sensori-motor

cognitive enhancer (Alzheimer's)  
mood  
information processing  
memory, recall  
cognition (mice, rats)  
tranquilizer  
stress reduction  
learning

vigilance performance    accuracy  
                                 speed  
                 could be either dopaminergic, noradrenergic or cholinergic

cortico-subcortico interactions

protection against central dopaminergic neuron degeneration

nutritional effects

upregulation of nicotine acetylcholine receptors

S vs. R nicotine

metabolism/metabolites

dose, concentration, background levels, different binding sites---different effects

cerebral effects

cardiovascular--coronary heart disease

placental toxicity

thyroid

adrenal cortex

respiratory effects

gastrointestinal effects

skeletal muscle relaxer

electrophysiological effects

behavioral arousal and sleep

effects on schizophrenia, alcoholism, Tourette's

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stimulant vs. sedative

anxiety, euphoria

regulation of neuroendocrine, endocrine function

hormone regulation--decrease fatigue

measures EEG, reflexes, autoradiography, PET, brainstem auditory evoked potentials,  
cognitive event-related potentials, visual event-related potentials

subjective

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