

# TOX TALK

## Society of Forensic Toxicologists, Inc.

1013 THREE MILE DRIVE • GROSSE POINTE PARK • MICHIGAN 48230-1412

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AND BRADFORD HEPLER, PH.D.

#### 1991

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#### S.O.F.T./C.S.F.S. MEETING

ptember 23-27, 1991 Montreal, Canada

William D. Robinson, S.O.F.T. Liaison Centre of Forensic Sciences 25 Grosvenor Street Toronto, Ontario M7A 2G8 Canada (416) 965-9507

#### CALL FOR ARTICLES

UNUSUAL CASES: THE ONE THAT ALMOST GOT AWAY

deadline - August 1, 1991

Submit to: Vicki Watts, Mesa Police Department, Crime

Lab, 130 N. Robson, Mesa, AZ 85202

DEATH BY POISON

Submit to:

deadline - November 1, 1991 Joseph Monforte, ToxTalk, 1013 Three Mile Dr,

Grosse Pointe Park, MI 48230

ANTIDEPRESSENTS

Submit to:

deadline - February 1, 1992 Chip Walls, Tox Lab, Rm 706, 600 S State St,

Syracuse, NY 13202

+ CSFS/SOFT MEETING + + SEPTEMBER 23-27 MONTREAL +

IN THIS ISSUE

REGULAR FEATURES

- Professional Calendar - Elmer Gordon

- Career Opportunities - Trea\$ury Note\$

- Membership Update

OF SPECIAL INTEREST

- Survey results: Cocaine in Infants

· Journal Club: Cocaine in Infants

Amphetamine/Methamph.

- Letters to the Editor

INSERTS - 1991 SOFT/CSFS Meeting Information

ToxTalk is mailed quarterly to members of the Society of Toxicologists, Inc. For membership information Forensic Ph.D. 1990 SOFT contact: Alphonse Poklis. Director, MCV Tox Lab, Box 597 - MCV Station, Richmond, 23298. Telephone: (804) 786-0272. Non-members may receive ToxTalk for \$15 per calendar year. Mail check payable to S.O.F.T. to ToxTalk at the address below.

All members and others are invited to contribute to ToxTalk. Submit all materials for publication consideration to: Joseph Monforte, Ph.D., ToxTalk, 1013 Three Mile Drive, Grosse Pointe Park, MI 48230-1412 (Telephone 313-884-4718).

DEADLINES: Feb. 1, May 1, Aug. 1, and Nov. 1.
NEXT DEADLINE - AUGUST 1, 1991

#### LETTERS TO THE EDITOR

From Peter Anderson, US Virgin Islands Police Department: Command Anderson requests the assistance of SOFT members in identifying cases of cyanide poisoning similar to five homicide victims who ingested a "magic Potion" apparently as part of the ritual to obtain good luck. All the victims are Caribbean area natives who died from 1984 to 1988. Please send any appropriate case reports to ToxTalk; they will be forwarded to Mr. Anderson and may be included with additional case information on the Caribbean cases in the September issue of ToxTalk.

the September issue of ToxTalk.
From SOFT member Donald Uges, the Netherlands: Dr. Uges writes, "In ToxTalk Volume 15, No 1 (March 1991) page 6 and 7 I found the 'Information on Selected Drugs: Benzodiazepines' submitted by H.Chip Walls . . . very useful for forensic toxicologists" and offers relevant European supplements as

overseas patients could travel to the USA. (See page 11.)

FORENSIC LABORATORY GUIDELINE MANUALS A REALITY!! This manual documents the efforts of the joint SOFT/AAFS Guidelines Committee and is the result thousands of man hours as well as dollars. SOFT should be proud of its leadership role in establishing standards in the practice of forensic toxicology.

## LABORATORY GUIDELINE DISTRIBUTION COMPLETE

All active, current members of record of SOFT (excluding student members) as of May 16, 1991, should have received a complimentary copy of the "Lab Guidelines". As the official distributor of the Guidelines, SOFT has mail approximately 600 copies to date to members of SOFT and AAFS (Tox Section) as well as private orders.

If you have not received your copy, contact SOFT Executive Coordinator Pat Monforte (313-884-4718) after July 20th, and she will help you track your copy down. Additional copies may be ordered from the SOFT Administrative Office for \$25 U.S. or \$35 outside U.S. (US fund only, payable to SOFT) while

the supply lasts.

## OOPS! POST OFFICE GOOFS!

Apologies from the U.S. Post Office to the first group of members received their copy of Forensic Toxicology SOFT/AAFS Guidelines. Α Laboratory employee erroneously marked flats as "first class" instead of rate" as directed. Pat appreciates the good grace (and bad jokes) with which you accepted the package and paid the \$1.85 for first class service.

## OFFICIAL NOTICE

THE S.O.F.T. ADMINISTRATIVE OFFICE

WILL BE CLOSED FROM

JUNE 19th to JULY 17th

Please direct all inquiries to President Anderson or Secretary Poklis

Bill Robinson's office will handle all meeting details

CALL TOLL-FREE 1-800-363-7777 -- MONTREAL VISITOR & CONVENTION BUREAU
For free information on how to make your trip to Montreal a great experience!

#### "SCIENCES SAN FRONTIERES"



## ANNUAL MEETING OF CSFS JOINTLY WITH SOFT AND IABPA

SEPTEMBER 23-27, 1991

LE GRAND HOTEL, MONTREAL



1991 SOFT Meeting Liaison Bill Robinson reports the joint meeting promises be a great success as much interest has been shown by toxicologists as well as exhibitors.

A few things to look forward to: Temperature from high 70's to 80's + outstanding scientific program + French cuisine at its best + close proximity to the Laurentians for those who wish to spend the weekend in the mountains + sensational workshops + Old World atmosphere of the French Quarter

DUTY FREE: You may purchase merchandise tax free from the duty free shops at your point of exit from the U.S. (airport, border) such as 40 fl. oz. liquor, 200 cigarettes, perfume, jewelry, etc. You may make similar purchases at duty free shops when you are departing Canada. Be sure to check with customs to avoid tax problems when re-entering the U.S.

CANADIAN GOODS AND SERVICES TAX (GST): Most goods and services are taxed at Forms and information will be available at the meeting to claim a rebate on GST paid for hotel registration and most purchases you are bringing to the If you qualify for a refund on the Provincial Sales Tax, information will be provided as well. KEEP YOUR RECEIPTS.

It's that pretty money, and \$.85 U.S. will purchase about CANADIAN FUNDS: 1.00 Canadian. You may exchange U.S. dollars for Canadian in either country. .ot all merchants will offer the same exchange rate as the bank - some will only accept "at par" (\$1 US = \$1 Canadian) while others may give you a better It all depends on the economy. Any credit card charges made in Canada will automatically be converted by the credit card company.

Enclosed with this issue of ToxTalk you will find:

Program outline

Call for papers

Call for DNA poster

Registration form

Hotel registration card

Montreal brochure

#### IMPORTANT DATES TO REMEMBER

June 30 - Abstract deadline (this has been extended)

August 1 - Meeting registration (late fee applied after 8/01)

August - DNA poster deadline

August 31 - Hotel reservation deadline

September 23 - Meeting begins!

## HOW DO YOU PAY YOUR REGISTRATION IN CANADIAN FUNDS?

According to Pat Monforte's bank (which is only a short sailboat ride away from anada), call your local BANK and ask for instructions on getting a CANADIAN MONEY ORDER or CANADIAN DRAFT (a draft is more complicated and expensive). If you pay your registration with a regular U.S. check, you may be paying \$20-25 too much.

## SCIENCES SANS FRONTIÈRES



CSFS - SCSJ SOFT IABPA 22 - 27 SEPTEMBRE 1991 SEPTEMBER 22 - 27, 1991

PROGRAM SYNOPSIS



#### SUNDAY 9/22:

Possible Guidelines Committee meeting (NOT confirmed)

#### MONDAY 9/23:

"Immunoassay of Drugs" workshop (full day)
"FTIR" workshop (full day)
"DNA Symposium" (afternoon, continues Wednesday)
DNA Posters (evening)
DNA Exhibitors (evening)
Wine and Cheese Reception (evening, for participants)

#### TUESDAY 9/24:

"Benchtop Mass Spectrometry" workshop (morning)
"Fires of Electrical Nature" workshop (morning)
SOFT Board Meeting (8:30 a.m.)
"DNA Symposium" (all day)
ABFT Board Meeting (12:30 p.m.)
Exhibitors (p.m.)
Welcoming Reception (5 p.m.)

#### WEDNESDAY 9/25:

Scientific Papers (all day)
Exhibitors (all day)
Cocktails and Special Presentation (6 p.m.)

#### THURSDAY 9/26:

Scientific Papers (a.m.)
Exhibitors (a.m.)
SOFT Annual Business Meeting (p.m.) NOT CONFIRMED
Section & CSFS Annual Meetings (p.m.)
Cocktails and Banquet (6 p.m.)

#### FRIDAY 9/27:

Plenary Session "Sciences sans Frontieres" (a.m.) (simultaneous translation) Scientific Papers (p.m.)

#### TREASURY NOTES

Many thanks to the more than 200 members who paid their dues in response to the notice in the last two issues of ToxTalk. Approximately 100 overdue notices were mailed to members who did not respond. By the time this issue of ToxTalk is distributed, the mailing list should contain only the names of those members who are current.

Watch for the 1992 DUES NOTICE that will appear in the September issue of ToxTalk. We hope an early notice will facilitate a timely payment to meet the December 31st deadline (and qualify for a 1991 tax deduction!) The September notice is the only general notice that will be mailed before the December 31st Overdue notices, with the required late fee, will be mailed Your assistance in making this task less cumbersome by paying dues on time will be greatly appreciated by the Treasurer, Mark Lewis. spends many hours manually tracking dues payments and contacting members who may be in arrears to assure they do not miss any membership perks.

WANTED: UNUSUAL CASES FOR THE NEXT ISSUE OF TOXTALK

Have you had a case where the person died from some unusual drug or substance? Or did it take some unusual method or research to determine what drug or substance was involved in a death? Or have you had a case where you nearly gave up then were very surprised by an unexpected finding?

If so, submit a short (1/3 - 1/2 page)report for the September issue of

ToxTalk before July 31st to:

Vicki W. Watts Mesa Police Department Crime Laboratory 130 North Robson Mesa, AZ 85202

IMPORTANT NOTICE

DEADLINES FOR ABSTRACTS

FOR SOFT/CSFS MEETING

EXTENDED TO JUNE 30TH

## E.R.A. TODAY

gratefully acknowledge the following additional 1991 contributors to Educational Research Award (ERA). If we have not recognized your 1991 contribution, we apologize for the oversight and ask that you please contact Treasurer Mark Lewis.

William Anderson Richard Barnett Stuart Bogema Richard Cohn

Joseph Crifasi William Dunn Patricia Field Larry Howard

Reng-Lang Lin Richard Maclure Michael Slade Craig Sutheimer Craig Sutheimer

We also thank the following for their ERA MEMORIAL CONTRIBUTIONS:

In memory of PEGGY PROUTY, wife of SOFT past president Dick Prouty:

Laurel Farrell

Joe & Pat Monforte

Robert Zettl

In memory of EARL WALDRON, father of Vicki Watts:

Tom Simonick

To make a memorial ERA contribution, send a check, payable to SOFT, to the SOFT Administrative Office, 1013 Three Mile Drive, Grosse Pointe Park, MI The family of the honoree will be notified, and you 48230-1412. mailed a receipt.

## SURVEY TO ASSESS COCAINE INVOLVEMENT

#### IN DEATH OF INFANTS TWELVE MONTHS OF AGE OR LESS

There was a very disappointing response to the above survey, which summarized below. My thanks to those of you who did respond. Interested parties are referred to The Journal Club for relative publications. particular interest, are the following:

Sturner, William Q., Sweeney, Kristin G., Callery, Richard T., and Haley, Nancy R. "Cocaine Babies: The Scourge of the  $\pm 90s$ ." Journal of Forensic Sciences 36(1):34-39, 1991.

Six cases of infant deaths with positive toxicological screening for cocaine or metabolites or both in the mother at delivery or in the the infant at birth, or both, are documented.

California Association of Toxicologists Winter 1990 Newsletter contains the following articles:

Jariwala, Leena, and Shaw, Richard F. "Clinical Pathological Toxicological Findings of Licit and Illicit Drugs in Stillborns, Newborns, and Infants." CAT Winter 1990 Newsletter, 22-25.

cases are presented and clinical, pathological, Eight toxicological findings noted. Cocaine or morphine were found in four cases where maternal addiction was known or suspected. In the remaining four cases, therapeutic or over-the-counter drugs were administered and found in concentrations greater than therapeutic.

Meeker, James E., and Reynolds, Philip C. "Fetal and Newborn Associated with Maternal Addiction." CAT Winter 1990 Newsletter 25-29 Newborn Deaths

This report summarizes 25 cases of fetal or newborn deaths in Northern California associated with maternal cocaine use and tables documenting 25 case summaries includes and cocaine /benzoylecgonine concentrations as well as cause of death.

Mirchandani, H.G., Mirchandani, I.A., Hellman, R., English-Ryder, R., Rosen, and Laposata, E.A. "Passive Inhalation of Free-Base Cocaine ('Crack') Smoke by Infants. Arch Pathol Lab Med Vol 115, May 1991.

Sixteen cases of infant death registered by the Philadelphia Medical Examiner's Office over a 2-year period (1987 through 1989) are reported where toxicologic analyses revealed the presence of cocaine metabolite, benzoylecgonine, and case investigation documents exposure to crack smoke shortly before death.

## NOMINATION COMMITTEE CONSIDERING 1992 SLATE

Nominating Committee Chairman Robert Bost reports his committee is preparing a slate to present to the members at the annual meeting. would like to suggest members (including yourself) for consideration for the positions of 1992 President, Vice President, Secretary or Director (2), please contact Dr. Bost or committee members Edward Briglia, Ph.D., or Joseph Monforte, Ph.D.

#### SURVEY RESULTS

Number of laboratories responding: 8

Number of laboratories routinely testing: 4

Number of laboratories testing by request only: 2

Number of laboratories not testing at all: 2

## Three laboratories reported the following cases:

	Mechanism of Ingestion	Cause/Manner of Death	Specimen	Cocaine Concent.*	B.E. Concent.*
(1)	unknown	acute cocaine	blood	0.08	none detected
	(possible)	intoxication/	urine	0.19	1.17
	oral)	homicide	gastric	0.24	0.08
	•	•	ČSF	0.08	0.05
			bottle	0.43	0.10
(2)	unknown	bronchopneumonia	blood	N.D.	0.08
		/natural	liver	N.D.	0.12
		•	urine	N.D.	5.8
			gastric	N.D.	0.25 mcg
(3)	possible breast milk	sudden unexpected death associated with hx of apnea	blood	N.D.	0.17
(4)	passive inhalation	cocaine intoxication /homicide	urine	0.036	. N.D.

## In addition, the following intrauterine deaths were reported:

	Mechanism of Ingestion	Cause/Manner of Death	Specimen	Cocaine Concent.*	B.E. Concent.*
(1)	intrauterine	acute cocaine intoxication (fetal exposure) / unclassified; maternal cocaine abuse	blood urine liver	0.30 0.40 0.14	1.1 1.2 0.38
(2)	intrauterine	intrauterine fetal demise /undetermined	blood brain	0.029 0.040	1.7 1.8
(3)	intrauterine	prematurity, Potter's Syndrome	blood	N.D.	1.8
(4)	intrauterine	unknown	blood	N.D.	0.32

<sup>\*</sup>ug/mL or ug/g

#### THE JOURNAL CLUB

Submitted by: H. Chip Walls, Toxicology Lab, Rm 706, 600 South State St., Syracuse, NY 13202 (315-435-3802)

It is the intent of this on-going feature to call attention to unusual or highly interesting articles, not a systematic review of selected journals such as available through other recognized sources. Citations 1-89 appeared in earlier issues of ToxTalk. You are encouraged to send contributions for this column to ToxTalk. Be sure to include proper citation or source address /telephone number.

#### A SELECTED BIBLIOGRAPHY OF COCAINE BABY REFERENCES

- 90. FETAL EFFECTS OF MATERNAL DRUG EXPOSURE. Farrar, HC and Blumer, JL; Ann Rev Pharmacol Toxicol 31:525-47, 1991.
- 91. MATERNAL-FETAL TOXICOLOGY: A CLINICIAN'S GUIDE. Koren, G (Ed), Marcel Dekker, Inc., NY, 1990.
- 92. COCAINE AND PREGNANCY: CLINICAL AND TOXICOLOGICAL IMPLICATIONS FOR THE NEONATE. Chasnoff, IJ, et al; Clin Chem 35(7):1276-78, 1989.
- 93. PRINCIPLES OF DRUG BIODISPOSITION IN THE NEONATE. A CRITICAL EVALUATION OF THE PHARMACOKINETIC-PHARMACODYNAMIC INTERFACE (Part I). Besunder, JB, Reed, MD, and Blumer, JL; Clin Pharmacokin 14:189-216, 1988.
- 94. THE PREVALENCE OF ILLICET-DRUG OR ALCOHOL USE DURING PREGNANCY AND DISCREPANCIES IN MANDATORY REPORTING IN PINELLAS COUNTY, FLORIDA. Chasnoff IJ, Landress, HJ, Barrett, ME. N E J Med 4/26, 1990 (1202-06).
- 95. COCAINE AND FETAL DEATH. Morild, I and Stajic, M; For Sci Intl 47:181-189, 1990.
- 96. DRUG ABUSE DURING PREGNANCY: EFFECTS ON THE FETUS AND NEONATE. James, GP; AACC-TDm-TOX In-service/CE, 11(8), 2/90.
- 97. CURRENT PERINATOLOGY VOLUME II. Chapter 7. Rathi, M., (Ed); Springer-Verlag, NY, 1990.
- 98. CLINICS IN PERINATOLOGY. CHEMICAL DEPENDENCY AND PREGNANCY. Chasnoff, IJ (Ed) 18(1), 3/91.
- 99. COMMITTEE ON SUBSTANCE ABUSE: DRUG EXPOSED INFANTS. Pediatrics 86(4):639-642.
- 100. EFFECTS OF TRANSPLACENTAL EXPOSURE TO COCAINE AND METHAMPHETAMINE ON THE NEONATE. Dixon, SD; Western J Med 150(4):436-442, 4/89.
- 101. PERINATAL IMPLICATIONS OF COCAINE EXPOSURE. Burkett, G, Yasin, S, and Palow, D; J Reprod Med 35(1):35-42, 1990.
- 102. EFFECTS OF MATERNAL COCAINE USE ON THE FATUS AND NEWBORN: REVIEW OF THE LITERATURE. Roland, EH, Volpe, JJ; Ped Neurosci 15:88-94, 1989.
- 103. THE PEDIATRIC CLINICS OF NORTH AMERICA. CHILD ABUSE. Reece, RM (Ed); 37(4):881-903, 1990. (Substance and Child Abuse)

- 104. FETAL DRUG THERAPY: PRINCIPLES AND ISSUES. Miller, RK; Clin Ob Gyn 34(2):241-247, 1991.
- 105. METABOLISM OF COCAINE BY HUMAN PLACENTAS: IMPLICATIONS FOR FETAL -EXPOSURE. Roe, DA, et al Am J Ob Gyn. 163(3), 1990.
- 106. COCAINE: MATERNAL USE DURING PREGNANCY AND ITS EFFECT ON THE MOTHER, THE FETUS. AND THE INFANT. Rosenak, D, et al Obs and Gyn Review 45(6), 1990.
- 107. COCAINE USE DURING PREGNANCY: PERINATAL OUTCOMES. Handler, A, et al; Am J Epidem 133(8), 1991

For those besieged with METHAMPHETAMINE, The Journal Club continues with

#### A MINI-METH REVIEW

- RELATION BETWEEN METHAMPHETAMINE AND AMPHETAMINE CONCENTRATIONS IN THE BLOOD AND SYMPTOMS IN METHAMPHETAMINE ABUSERS. Nippon-Hioguka-Zasshi; Japan J Legal Med 40(2):132-9, 1986.
- 109. CRYSTAL METHAMPHETAMINE INDUCED ACUTE PULMONARY EDEMA: A CASE REPORT. Hawaii Med J 48(11):457-8, 1989.
- PHYSIOLOGIC, SUBJECTIVE, AND BEHAVIORAL EFFECTS OF AMPHETAMINE, METHAMPHETAMINE, EPHEDRINE, PHENMETRAZINE, AND METHYLPHENIDATE IN MAN. Martin, WR; Cl Pharmacol and Therapeutics 12(2):245-58, 1971.
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  - SYNTHESIS, IDENTIFICATION, AND ACUTE TOXICITY OF ALPHA-BENZYLPHENETHYLAMÍNE AND ALPHA-BENZYL-METHYLPHENETHYLAMINE CONTAMINANTS IN CLANDESTINE PREPARATION OF AMPHETAMINE AND METHAMPHETAMINE. Noggle, FT, JR; J Assoc Official Anal Chemists 68(6):1213-22, 1985.
  - 113. COMPARISON OF EXTRACTION METHODS FOR METHAMPHETAMINE AND ITS METABOLITES IN TISSUE. Inoue, T; J For Sci 31(3):1102-7, 1986.
  - 114. HIGH-PERFORMANCE LIQUID CHROMATOGRAPHIC CHIRAL STATIONARY PHASE SEPARATION WITH FILAMENT-ON THERMOSPRAY MASS SPECTROMETRIC IDENTIFICATION OF THE ENANTIOMER CONTAMINANT (S)-(+)-METHAMPHETAMINE. Lee, ED; Anal Chem 58(7):349-52, 1986.
- 115. ENANTIOMERIC COMPOSITION ANALYSIS OF AMPHETAMINE AND METHAMPHETAMINE BY CHIRAL PHASE HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY. Hayes. SM; J Chrom 398:239-46, 1987.
- 116. A NEW ANALYTICAL METHOD FOR STEREOISOMERS OF METHAMPHETAMINE AND AMPHETAMINE AND ITS APPLICATION IN FORENSIC TOXICOLOGY. Nagai, T; Biochem 22(6):439-42, 1989.
- ENANTIOSELECTIVE GAS CHROMATOGRAPHIC ASSAYS WITH ELECTRON CAPTURE  $\sim 117.$ ETECTION FOR METHOXYPHENAMINE AND ITS THREE PRIMARY METABOLITES IN HUMAN URINE. Srinivas, NR; J Chrom 487:61-72, 1989.

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- 119. ENANTIOMERIC COMPOSITION ANALYSIS OF AMPHETAMINE AND METHAMPHETAMINE BY CHIRAL PHASE HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY. Hayes SM; J Chrom 398:239-246, 1987.
- 120. ASSAY OF THE OPTICAL ISOMERS OF METHAMPHETAMINE AND AMPHETAMINE IN URINE USING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY WITH CHIRAL CELLULOSE-BASED COLUMNS. Nagai, T; J Chrom 525:208-209, 1990.
- METHODS FOR THE DIFFERENTIATION OF METHAMPHETAMINE FROM REGIOISOMERIC PHENETHYLAMINES. Noggle, FT; J Chrom Sci 29:31-36, 1991.
- 122. RESOLUTION OF METHAMPHETAMINE STEREOISOMERS IN URINE DRUG TESTING: URINARY EXCRETION OF R(-)-METHAMPHETAMINE FOLLOWING USE OF NASAL INHALERS. Fitzgerald, RL; J Anal Tox 12:255-259, 1988.
- FORENSIC TOXICOLOGICAL ANALYSIS OF METHAMPHETAMINE AND AMPHETAMINE IN BODY MATERIALS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY. Hara, K; Z Rechtsmed 96:93-104, 1986.
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- 130. A NEW ANALYTICAL METHOD FOR STEREOISOMERS OF METHAMPHETAMINE AND AMPHETAMINE AND ITS APPLICATION TO FORENSIC TOXICOLOGY. Nagai, T; Biochem 22:439-442, 1989.
- NEGATIVE-ION MASS SPECTROMETRY OF AMPHETAMINE CONGENERS. Marde, Y; Clin Chem 24(10):1719-23, 1978.
- ANALYSIS OF 310 CASES OF ACUTE HGH-DOSE METHAMPHETAMINE TOXICITY HAIGHT-ASHBURY. Smith. DE: Clin Tox 3(1):117-124, 1970
- 133. ILLICIT METHAMPHETAMINE: ANALYSIS, SYNTHESIS, AND AVAILABILITY. Pudner KS: Am J Drug Alc Abuse 14(4):463-473, 1988.

## RESPONSE TO "INFORMATION ON SELECTED DRUGS: BENZODIAZEPINES" ToxTalk 15(1), march 1991

wbmitted by Donald Uges, Ph.D., the Netherlands

Clobazam is often used as an adjuvant to antiepileptic drugs. Clobazam serum levels are relatively low (100-400 ng/mL), but after one month of therapy the steady state serum levels of the active metabolite N-desmethylclobazam (= norclobazam) ranges from 2000-4000 ng/mL.

In the Netherlands, Flunitrazepam (Rohypnol) is the most abused benzodiazepine. Flunitrazepam is taken as a "forget-pill", it decreases the psychological resistance (e.g. for heroin prostitutes), and it can partly

replace opiates.

Flunitrazepam is also very popular by the soccer-hooligans. Flunitrazepam should also increase the sexual en aggressive content of the R.E.M.-sleep. It is, as far as we know, the only benzodiazepine which increases the blood pCO2 and decreases the pO2. Therefore, the combination of heroin and flunitrazepam has already been fatal for several junks in Holland. Most screening systems in urine are not sensitive enough to measure theapeutic use of this benzodiazepine. Therapeutic serum levels are 5-15 ng/mL, and toxic about 50 ng/mL.

In the acid stomach content clorazepate is at once decarboxylized to nordazepam. If pure clorazepate is found in the blood, it is obvious that clorazepate has been given parenterally. We had a case in which the difference in route of administration of clorazepate (i.m. instead of oral) was sufficient to find the person who had given the drug to the victim.

## QUICK REFERENCE NUMBERS FOR SOFT/CSFS MEETING INFORMATION

S.O.F.T. MEETING LIAISON: 416-965-9507 - Bill Robinson

MAILING LIST: 313-884-4718 (US) - Pat Monforte, SOFT Exec. Coordinator; Leave complete mailing address and message on recorder

CANADA - Call Bill Robinson's office; leave complete mailing address with staff

CHAIRMAN: 514-873-2704 - Francois Julien

SCIENTIFIC PROGRAM: 514-873-2704 - Carole Peclet

EXHIBITS: 514-737-7575 - Claude Marsolais

HOTEL: 1-800-361-8155 - Le Grand Hotel, Montreal

OURIST INFORMATION: 1-800-363-7777 - Montreal Visitor & Convention Bureau

ALL meeting arrangements are determined by the CSFS

TOXTALK Volume 15, No. 2 (JUNE 1991 - page 11)

## ELMER GORDON OPEN FORUM - AN OPPORTUNITY FOR INFORMAL DIALOGUE

Vicki Watts advises members that copies of the AAFS Tox Section workshop "The Effect of Drugs on Human Performance and Behavior: Drugs and Driving/Drugs in the Workplace" are available for \$25 (prepaid) from: AAFS, P.O. Box 66 Colorado Springs, CO 80901-0669. This bound, 300 page, manual contains reference articles in the area of performance tesing and drug impairment, including reprints of key studies and unpublished narrative pertinent to the workshop speakers' topics. The supply is limited (100).

#### MEMBERSHIP UPDATE

Congratulations to the following who have qualified for membership in SOFT:

FULL - Lee Blum, Krystyna Bogdziewicz, Dean Fritch, Dwain Fuller, Thomas George, Thomas Kupiec, and James Meeker.

ASSOCIATE - Sandra Atzert and Martin Ward

For membership applications or information, contact:

Dr. Alphonse Poklis, SOFT Secretary MCV Toxicology Laboratory, Box 597 Medical College of Virginia Station Richmond, VA 23298

(804) 786-0272

FOR SOFT/CSFS MEETING
AUGUST 1st

#### CAREER OPPORTUNITIES

ToxTalk will advertise available positions at no cost as a service to our members. Send the information to Editor Monforte or call 313-884-4718.

TOXICOLOGIST: PRINCIPAL Experienced PhD, immediate opening, position as toxicologist to mammalian interpretate, and summarize evaluate. published toxicology literature and data and site-specific documents used as basis to regulate or provide guidelines for chemicals environment to protect health, inform the public and health of the "state professionals knowledge" concerning the chemical the basis for hazardous waste si clean-up. Contact Andrea Carnes, Lifé Systems, Inc., Cleveland 216-464-3291.

NIDA certified laboratory in Detroit area seeking individual experienced in immunoassay testing and GC/MS. Contact Dr. Joseph Monforte 313-224-5626 or Dr. Bradford Hepler 313-224-6459.

## PROFESSIONAL CALENDAR

CALIFORNIA ASSOCIATION OF TOXICOLOGISTS quarterly meetings and workshops. For information contact Susan Knight (1-800-854-0277) or Thomas Sneath (805) 322-4250.

Future SOFT meeting sites: 1992 - Connecticut (N. Reading)
1993 - SOFT/CAT Phoenix (V. Watts)

#### SOFT GOES TO CANADA

The Joint meeting this year is looking to be a great success as we have had a lot of interest shown both by companies interested in exhibiting and in toxicologists looking to attend.

A few things to look forward to:

The temperature should be in the high 70's to 80's,

French cuisine at its best,

Old world atmosphere of the French Quarter,

Close proximity to the Laurentians for those who wish to spend the weekend in the mountains,

The workshops are sensational,

You can bring merchandise tax free from the duty free shops at the airports, ie. 40 fl. oz. liquor, 200 cigarettes, perfume, jewelry etc. When leaving Canada you will again be able to visit the duty free shops.

In Canada we have a Goods and Services Tax (GST).

Most goods and services sold or provided in Canada are taxed at a rate of 7%. Visitors to Canada can claim a rebate on the GST they pay on short-term accommodation and on most consumer goods they buy to take home. Up to \$ 500 can be claimed at any duty free shop when leaving Canada. Larger refunds can be applied for when you arrive home. Information and application forms will be available at the meeting. We are also looking into the possibility of obtaining a refund on the Provincial Sales Tax. More information will be available later.

Remember when submitting monies for registration, workshops, etc. to make sure it is in CANADIAN dollars. This will be a saving to you of approximately 15%.

Hope to see you all in Montreal in September. Lets make this a meeting to remember.

Bill Robinson

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#### OF INFANTS TWELVE MONTHS OF AGE OR LESS

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4.		routinely tests for infants 12 months of		Yes No
2.		tests for cocaine/co ths of age or less on		Yes No
3.	The approximat	e number of infant ca	ses tested per year.	
4.		e the following iform ocaine/cocaine metabo		
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/meta Concentrations**	bolite
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4.		routinely tests for o infants 12 months of		Yes No
2.		tests for cocaine/coc hs of age or less onl		Yes No
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	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/meta Concentrations**	bolite
EX:	Breast milk	Cocaine intox/Acc	Blood - Cocaine: not de Blood - BE: 25 ng/mL Kidney - Cocaine: 10 ng Kidney - BE: 50 ng/gm	
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	lab will not dentified)	Laboratory <u>Labor</u>	story Specialists In	<u> </u>

## OF INFANTS TWELVE MONTHS OF AGE OR LESS

1.		routinely tests for coinfants 12 months of		Yes No
2.		tests for cocaine/coc hs of age or less onl		Yes No
3.	The approximate	number of infant cas	es tested per year.	
4.		the following iforma caine/cocaine metabol		
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/metab Concentrations**	olite
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and 1	onal: (name lab will not	Submitted by <u>Nonn</u>	For ensic Toxicology	PR 18 1991
be i	dentified)	Laboratory /- /4 /4	FOR ENSIR TOXICOLOGY	

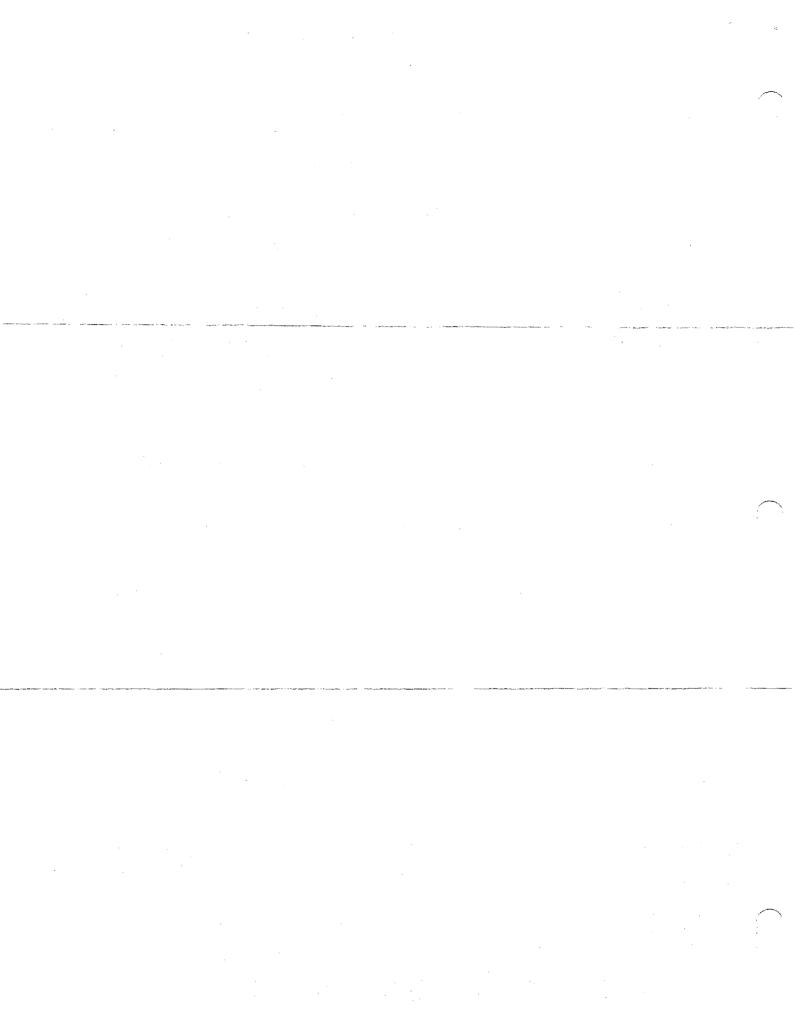
## SURVEY TO ASSESS COCAINE INVOLVEMENT IN DEATHS OF INFANTS TWELVE MONTHS OF AGE OR LESS

1.	The laboratory routinely tests for ometabolites in infants 12 months of		Yes (No)
2.	The laboratory tests for cocaine/cocinfants 12 months of age or less on		Yes No
3.	The approximate number of infant cas	ses tested per year.	loos than 10
4.	Please provide the following iformate POSITIVE for cocaine/cocaine metabol		G
	Mechanism of Cause/Manner Ingestion* of Death	Specimen Cocaine/met Concentrations**	
EX:	Breast milk Cocaine intox/Acc	Blood - Cocaine: not d Blood - BE: 25 ng/mL Kidney - Cocaine: 10 n Kidney - BE: 50 ng/gm	
Α.	- no systematic records by	subject age	
В.	no individual cores that	9 recall	
С.	- no "grogram" to de these	teste at our lab	
D.	- no institution we derne en	ho routinely lesto inf	anto for drip
E. '	HOWEVER de lave 2 reversch	Jugeto (10 blind)	6 look
F.	Ros incidence of duy use	en signant mons	<del>'</del>
**P]	An incidence of dup use  all machine deliveres  (1 month period in the future)  amples: breast milk, passive inhalate ease provide cocaine/cocaine meta ecimens tested	oll preprint teen age (on going)  ion of smoke, unknown abolite concentrations	for all
and	onal: (name Submitted by $\sqrt{0}$ lab will not dentified) Laboratory $\sqrt{W}$	& Vielle - Stato Lab of Kygiene	,
Со	mplete and mail BEFORE MAY 15, 1991 to 1013 Three Mile Drive, Grosse Po	to: J. Monforte, ToxTal	k Editor,

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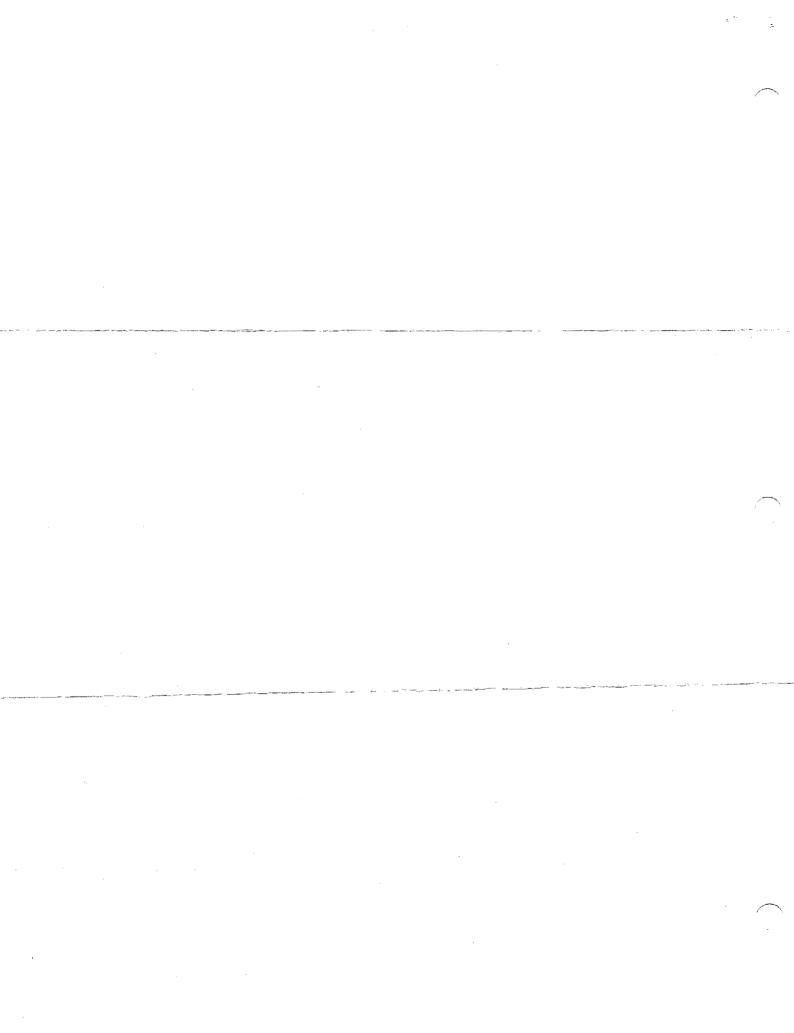
#### OF INFANTS TWELVE MONTHS OF AGE OR LESS

<b>*</b>				
1.		routinely tests for coinfants 12 months of		Yes No
2.		tests for cocaine/coc hs of age or less onl		Yes No
3.	The approximate	number of infant cas		<u> </u>
4.		the following iforma caine/cocaine metabol	tion on infants TESTING ites:	
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/meta Concentrations**	bolite
EX:	Breast milk	Cocaine intox/Acc	Blood - Cocaine: not de Blood - BE: 25 ng/mL Kidney - Cocaine: 10 ng Kidney - BE: 50 ng/gm	
Α.	Note: We have	not found cocaine	in any intents in la	st year.
3.				
С.				
D.				
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F.				
**P]		-	abolite concentrations	for all
and	onal: (name lab will not dentified)	Submitted by Robert 1  Division a 401-AC	L Fitzgerald Ph. O. of Forensic Science Jolley Ave. Norfolk UA 2350	07
C =		DEEODE MAY 15 1001 4	. 1 Monfoute TeuTell	. Edi+~~



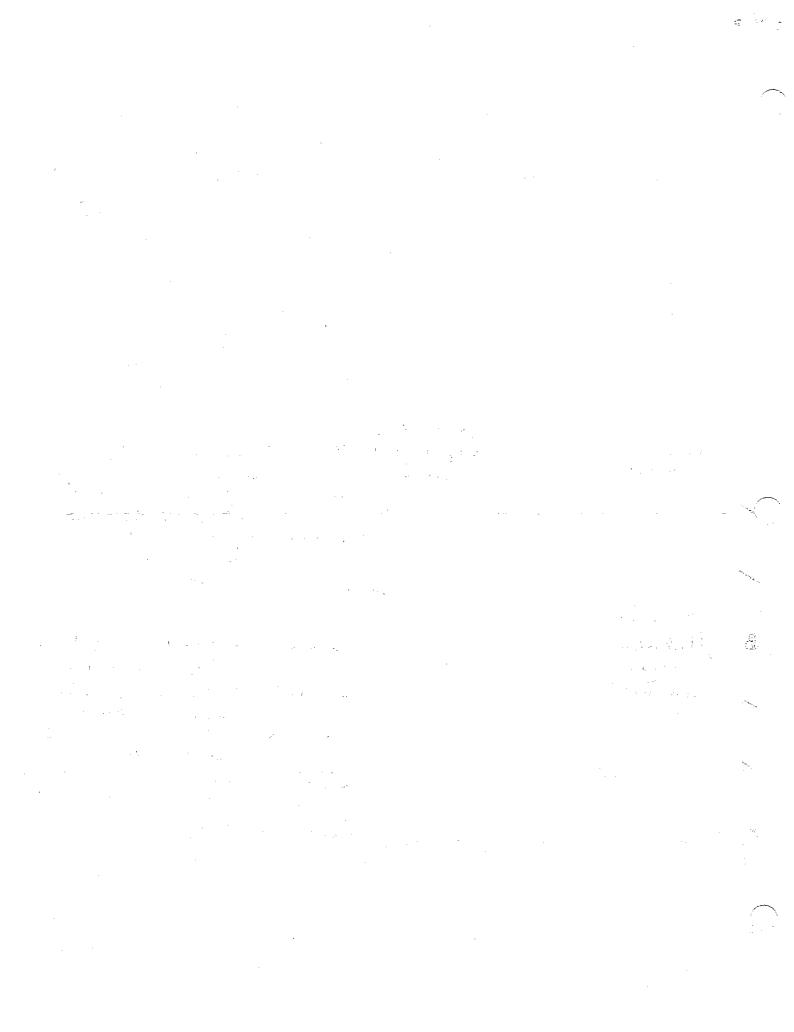
#### OF INFANTS TWELVE MONTHS OF AGE OR LESS

1.		routinely tests for c		No.
		infants 12 months of	-	Yes No
2.		tests for cocaine/coc chs of age or less on		Yes No
3.	The approximate	e number of infant cas	ses tested per year.	30
4.		e the following iforma ocaine/cocaine metabo		G
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/met Concentrations**	
EX:	Breast milk	Cocaine intox/Acc	Blood - Cocaine: not of Blood - BE: 25 ng/mL Kidney - Cocaine: 10 r Kidney - BE: 50 ng/gm	g/gm
Α.	UNK	BRONCHO QUEUMOARK!	BLOOP COCAINE NOT; BE LIVER "" BE  CHATRIC "" BE	= 120 "1 = 5810 " = 250 mg (1070
В.				
С.	UNK	JATRAUTERINE FORM. DEMISE/UNDETER.	BLAIN OCAINE 40 "	ul; BE 1700 mg ; BE 1860 mg/
D. E.	Poss. Breast MILK	SUDDEN UNEXPECTED SEATH ASSOCIATED WITH HX OF ADVENT	BLOOD COCHINE NO;	BE 170 ng/ml
G. *Ex **P] sp	(amples: breast n lease provide decimens tested	cocaine/cocaine meta Submitted by Richt	ion of smoke, unknown abolite concentrations	for all
and	lab will not (dentified)	Laboratory SAN DIGGE	DUNTY MEDICAL EXAM.	WER'S OFC
	mplete and mail	BEFORE MAY 15, 1991	to: J. Monforte, ToxTal ointe Park, MI 48230-141	k Editor,



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1.		routinely tests for c infants 12 months of		Yes No
2.		tests for cocaine/coc hs of age or less onl		Yes No
3.	The approximate	number of infant cas	es tested per year.	<30
4.		the following iforma caine/cocaine metabol		G
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/met Concentrations**	abolite
EX:	Breast milk	Cocaine intox/Acc	Blood - Cocaine: not de Blood - BE: 25 ng/mL Kidney - Cocaine: 10 n Kidney - BE: 50 ng/gm	
Α.	Placental Blood	we Cocaine Intoxicat (Fetal Exposure) Jundossified	Blood COCKINE - 0 BZE - 1.	12 meghanl
8.	Pa	ort2: maternal Cocaste	WRINE - COCAINE - BZF - 1.6 Liver - COCAINE - BZE - C	El maml.
B	Unknown	Acute Cocare	BLOOD - COCaine -	- 0.08mcgh
£.	via Bottle)	Homicide	BZE - M URINE - COCAINE - BZE - GASTRIC - COCAINE	ione detected -0.19mg/m
₽.			CSF - COCAINE -	0.08 mcg/ml 0.08 mcg/ml 0.05 mcg/ml
1 1	amples: breast m ease provide ecimens tested	nilk, passive inhalati cocaine/cocaine meta	Bottle - Cocarte- on of smoke, unknown bolite concentrations	- 0.43 mg/ml
and	onal: (name lab will not dentified)	Submitted by Name  Laboratory Formsi	P. Haley Toxicology Laborator	<u> </u>
Co			o: J. Monforte, ToxTal inte Park, MI 48230-141	



#### OF INFANTS TWELVE MONTHS OF AGE OR LESS

	merapolices in	infants 12 months of	age of less	(Yes) No
2.	•	tests for cocaine/co hs of age or less on	caine metabolites in ly upon request	Yes No
3.	The approximate	number of infant ca	ses tested per year.	50-
4.		the following iform caine/cocaine metabo		NG
	Mechanism of Ingestion*	Cause/Manner of Death	Specimen Cocaine/met Concentrations**	
EX:	Breast milk	Cocaine intox/Acc	Blood - Cocaine: not o Blood - BE: 25 ng/mL Kidney - Cocaine: 10 n Kidney - BE: 50 ng/gm	
A.	Stillbom 34-36WK gest) umbilical cord	prematurity; Potter's Syndrome	Blood - Cocaine = not Blood - BE: 1860 ng	+ detected
В.	(stillborn) umbilical cord	unknown	postmortun: Blood-cocaine: none Blood-BE: ≥ 320 n	edetected
С.				
	NOTE:- We get	many more tests of these 70	on live newborns	(арргох 60
D. /	NOTE:- We get	many more tests of these 70	on live newborns 3 are poo.	(арргох 60
D	NOTE:- We get	many more tests of these 70	on live newborns	(approx 60
E. F. G.			- Annual 18*	(approx 60
D. E. F. *Exe**Ple	amples: breast m ease provide ecimens tested	ilk, passive inhalat	ion of smoke, unknown abolite concentrations	for all



#### MEMORANDUM

DATE: April 19, 1991

TO:

ToxTalk Editorial Board: Walls, Watts Hepler

FROM:

Joe Monforte

RE:

JUNE TOXTALK

You should have received your copy of ToxTalk by now, and I hope you are pleased with this edition. Special thanks to Chip Walls for his continuing contributions.

Enclosed is an additional copy of the SURVEY TO ASSESS COCAINE INVOLVEMENT IN DEATHS OF INFANTS TWELVE MONTHS OF AGE OR LESS. I would like each of you to:

- 4) Complete and return the survey
- Submit at least 1 case if you have one.
- Identify 2 other people in 2 other labs who have at least one 3> case and be responsible for getting them to submit case reports.

I will be asking grad Hepler to be responsible for compiling the results of the survey and assist me with the case reports.

Please complete below and return to me RFFORF MAY 1st.

I have contacted the following and will be responsible seeing to it that they will each submit at least one case regarding cocaine deaths in infants: (Name, Lab)

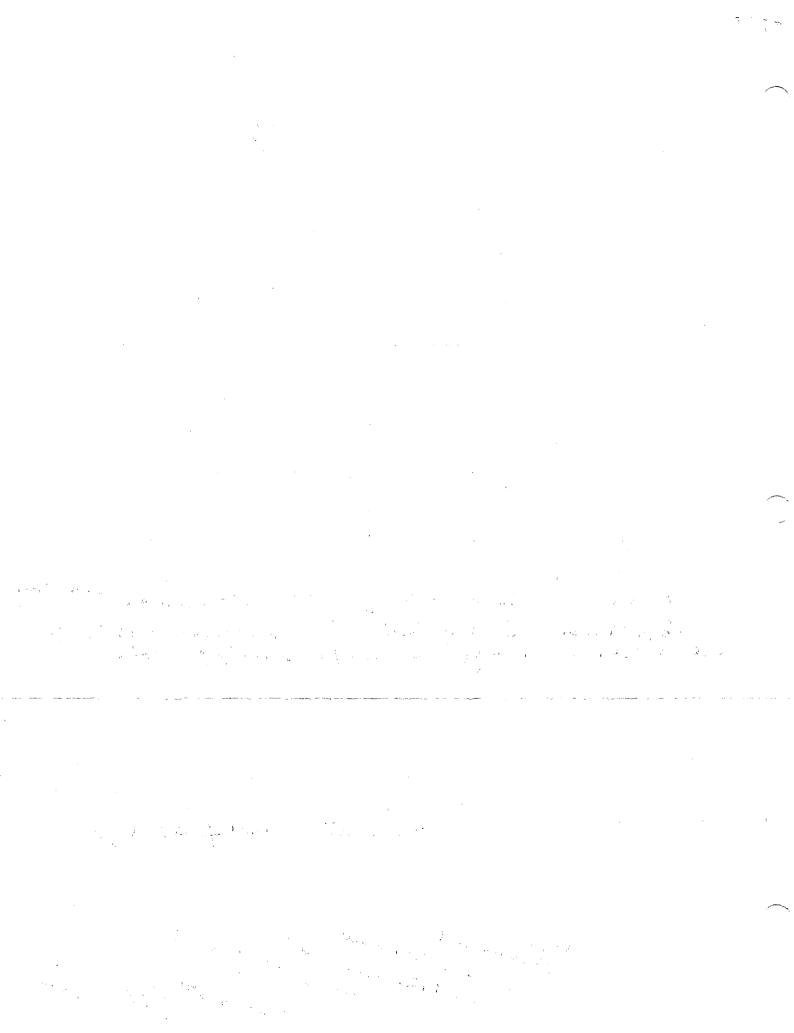
Greg Olson Rout Pathology 1890 N Waterman Aug San Bernarde

Jan Much, And of Frence Sciences 2900 Mets & Oakle Ca but at CAT menter + have a muntil cours m infant executs
Enclosed are some address labels for your convenience and a selfaddressed, stamped envelope.

Vicki, could you give some thought to a focus for the September issue and be responsible for soliciting/gathering material for it. We will have to have all materials sooner than usual since the mail date will be totally dependent on when we get information regarding the SOFT meeting and deadline for sending that out. You should promote the subject in the June issue. -> Su attack call of artists w

JUNE TOXTALK DEADLINE MAY 1st but will probably go to press May 17 or June 6 depending on other commitments and coordinating with the SOFT meeting materials. Pat and I may be out of town May 22nd to June 2nd.

Please and CAT muts Jun isin
Please of CAT muts annumber Jun isin
Thank on White God Williams



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TO: ToxTalk Editorial Board: Walls, Watts, Hepler

FROM: Joe Monforte

RE: JUNE TOXTALK

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#### MEMORANDUM

DATE:

August 29, 1991

T0:

Editor Monforta

FROM:

Patricia Mohn-Monforte, ToxTalk, Publications Editor

RE:

JUNE 1991 TOXTALK - PRODUCTION REPORT

374 issues of the JUNE 1991 issue of TOXTALK were distributed 6/18/91.

359 U.S. bulk\* : 355 members, 3 subscriptions, 1 comp.

15 Canada (ist class)

2 Bermuda, Swiss, Netherlands (1st class)

376 Total distributed - (last issue, 365)

#### FXPFNSFS:

\$ 84.39 additional postage\*\*

20.00 computer fee (eliminates typesetting)

303.31 printing (to be paid directly to printer)

19.95 misc.

345,00 publication editor fees

15.00 outside services

\$787.45 Total (Does not include pre-paid bulk stamps and envelopes)

#### COMMENTS:

This 12-page issue included the regular features as well as: results of the infant death survey included in the March issue - the response was very disappointing with only 8 laboratories participating; and Chip Walls provided some great references on cocaine babies as well as a mini-meth review (43 references in all). The CSFS sent material to be included in the mailing, unfortunately, the nice folder was larger than our envelopes so materials had to be removed, etc. and much of it discarded. Even so, this insert caused us to go over the 3 oz limit costing an additional \$52,98.

c: W. Anderson, M. Lewis,

15.00 - C/H 30231 - Singe 345.00 Pat - fee 124.34 Pat Marse