



VYTP

Virginia Youth Tobacco Project

News of the Month

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VYTP *News of the Month*

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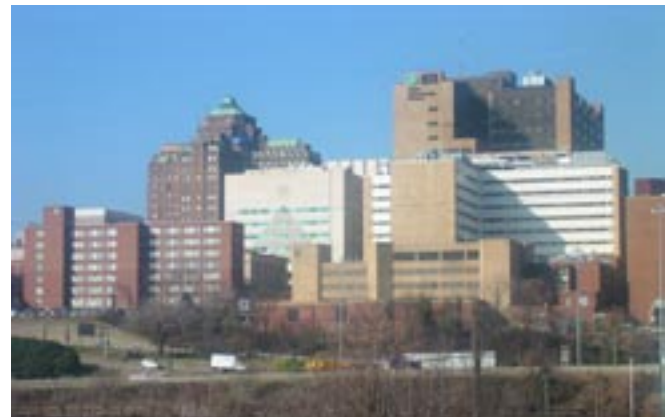
VTSF Team Tours VCU Tobacco Research Outfit

1 July, Richmond—Marty Kilgore, Executive Director of the Virginia Tobacco Settlement Foundation (VTSF), spent time today touring facilities and talking with scientists working on youth tobacco prevention programs on the MCV campus of Virginia Commonwealth University. She was accompanied by Marge White, VTSF Deputy Director, and by Dr. K.G. Srinivas, who is a Northern Virginia pediatrician, a member of VTSF's Board of Trustees, and a representative of the board's research committee. They were welcomed to VCU by Dr. Roy Pickens, Associate Vice President for Research, and Dr. Bob Balster, Director of the Institute for Drug and Alcohol Studies, who serve as co-principal investigators for the Virginia Youth Tobacco Project (VYTP).

Highlights of the day included a visit to the VCU's Biotech Research Park, where Dr. Kenneth Kendler, Director of the Virginia Institute for Psychiatric and Behavioral Genetics, gave a briefing on the genetic epidemiology of tobacco use, and Dr. Sam Chen, Assistant Professor in VCU's departments of Psychiatry and Human Genetics, showed

the guests around a gene molecular analysis lab. Research suggests that there is a strong genetic component in the propensity of people both to initiate tobacco use and to become dependent on nicotine. Dr. Kendler and his colleagues, with support from VTSF, are engaged in pioneering work to understand the extent of genetic influence over tobacco use and the individual genes that contribute to vulnerability.

The tour group then visited with faculty in VCU's Department of Pharmacology and Toxicology, where the department chairman, Dr. Billy Martin, led a lab tour and a briefing on the tobacco-related work proceeding there. Post-doctoral fellow Dr. Sherrie Grabus demonstrated some of the techniques used to study different aspects of nicotine pharmacology.



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VYTP Coalition Selects Small Grant Recipients

Dr. Randy Koch, Director of the VYTP Coalition, has announced the selection of six new projects to be added to the VYTP research program, to be funded with a total of \$210,000 through our small grants initiative. The table below lists the projects, the institutions involved, and the principal investigators.

Selections were based on the deliberations of a peer review panel, which included representatives from George Mason University, James Madison University, Johns Hopkins University, the University of Virginia, Virginia Commonwealth University, the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services, Virginia Polytechnic Institute and State University, and the Virginia Tobacco Settlement Foundation.

The primary purpose of the small grants initiative is to expand the network of researchers conducting studies on the causes and prevention of youth tobacco use in Virginia. In particular, this initiative will attract new faculty scholars to work on problems of youth tobacco use, encourage multi-university collaborations, and stimulate pilot studies that can be used to attract additional outside funding.

A request for applications (RFA) for the initiative was announced on April 3, 2003, and distributed to research administrators and faculty departments at each of Virginia's state universities and colleges. The

deadline for applications was May 27, 2003. Fourteen applications were received from seven universities.

Consistent with the goals of the initiative, five of the applications included collaborations between two or more universities, and nearly all applications included faculty researchers who had never conducted research on youth tobacco use. We received applications from investigators in a wide variety of disciplines, including psychology, psychiatry, genetics, public administration, social work, human development, and pharmacology.

The chosen projects will involve both senior researchers and junior faculty. In addition, four of the studies include significant involvement of graduate students, thus ensuring that new investigators are being trained to work in tobacco prevention research in Virginia. Several multi-university collaborations have emerged through the small grants program – four of the six funded studies include collaboration between two universities.

Final contract arrangements are now in progress. All of the six selected applicants have successfully responded to the revisions suggested by the scientific review group. In one case, at the suggestion of the review committee, a successful applicant has agreed to collaborate with another applicant who proposed work on a similar topic. Most awardees are now in the process of obtaining IRB approval. We expect that the

contracts will be completed for all awardees during August 2003.

We heartily welcome our new researchers and institutions to the VYTP team.

Principal Investigator	University	Project Title
Bruce P. Dembling	UVA	Youth Tobacco Control Policy Research: Behavioral and Biological Factors
Josh A. Burk	W&M	Adolescent Nicotine and Alcohol Administration and Cognition
Julie Linker	VCU	Smoking Habits of Adolescent Outpatients with Emotional and Behavioral Disorders
Faye Z. Belgrave	VCU	Protective Factors for Tobacco Use Among African American Adolescents
Pamela A. Kulbok	UVA	Protective Factors and Youth Nonsmoking Behavior
ZewelANJI N. Serpell	JMU	Social Factors Related to Smoking Among Middle and High School Students with ADHD

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Then, Dr. Martin was joined by Dr. Imad Damaj, Dr. Michael Miles, Dr. Joe Ritter, and Dr. Susan Robinson, each of whom is looking at an aspect of nicotine pharmacology, using funding provided by VTSF. Dr. Robinson is studying how prenatal exposure to nicotine might effect the vulnerability of young rats to subsequent addiction. Dr. Damaj is studying the acute effects of nicotine in mice, and comparing these effects in young adolescent, older adolescent, and adult mice. His preliminary results show interesting differences both in mice of different ages and in males vs. females. These results track with work in Dr. Ritter's lab, which suggest that younger animals, especially males, may metabolize nicotine faster than older animals, and that this difference can be attributed to a particular genetic ensemble that is seen both in mice and in humans. Dr. Miles is doing microarray gene activation studies that compare nicotine's effects in different regions of the brain. His early results indicate that nicotine stimulates neurochemical activity in the the prefrontal cortex in mice, a region known to be responsive in mice to alcohol, and one implicated in human behavioral responses to nicotine and alcohol. Dr. Miles' research also points to genetic-biochemical processes that are implicated in nervous system growth and development, which may provide clues to tobacco's long-term effects on brain and behavior.

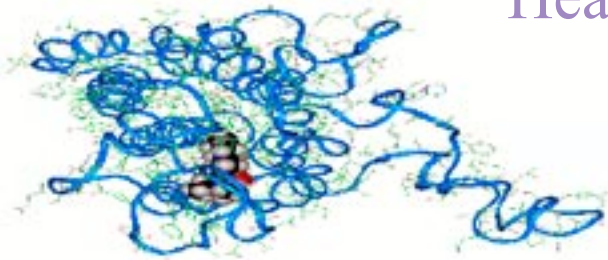
Both Dr. Martin and Dr. Kendler pointed out the importance of VTSF support for research at VCU – that new collaborations were forming within their departments and between their departments that would not have occurred had VTSF not provided resources to focus on the problem of youth tobacco use, and to pursue such a broad-based, scientific approach to the problem.

After lunch, Ms. Kilgore and her VTSF colleagues were shown the Clinical Behavioral Pharmacology Laboratory, where Dr. Tom Eissenberg of VCU's Department of Psychology, Dr. Deborah Haller of the Department of Addiction Psychiatry, and post-doctoral fellow Dr. Michelle Acosta are conducting a unique research program involving young people who are in the early stages of tobacco use. In the lab, young volunteers receive a battery of physiological and psychological tests before and after they smoke a cigarette. From these tests, researchers gain a fine-grained understanding of the acute effects of smoking in young people, and also insight into the patterns

of smoking that characterize those who have more or less experience with tobacco. This information is then fed back to the subjects, along with a brief anti-tobacco intervention, that may consist of a motivational interview or exposure to printed or videotaped anti-tobacco messages. Subjects will be reassessed at intervals over the next year to determine the effectiveness of the different intervention activities. The overall objective of this research program is to establish a system of clinical trials to test and validate a range of intervention strategies and options – to directly attack youth smoking behavior before it results in addiction.

In the afternoon, VCU's guests from VTSF were given briefings on other ongoing tobacco research activities on the MCV campus and beyond. Dr. Donna Miles of the Department of Human Genetics gave a presentation on her work with the Mid-Atlantic Twin Registry, which is teasing out the contribution of genes and environment to tobacco initiation and addiction. She is conducting a follow-up survey of a group of more than 1,400 identical and fraternal twins who were questioned about their tobacco use between 1990 and 1992, when they were eight to sixteen years old. Her work will reveal risk and protective factors at work in this controlled sample, and help identify vulnerable populations of young people, which can lead to better targeted prevention interventions. Dr. Liz Fries of the Department of Psychology and the Massey Cancer Center talked about her work evaluating the 109 school- and community-based prevention programs being funded by VTSF. She presented preliminary results on data from more than 20,000 questionnaires obtained from program providers and participants. Based on her work, VTSF will be able to make informed judgments on how different prevention programs work, and so allocate their precious resources in the most effective manner. Randy Koch, Executive Director of VCU's Institute for Drug and Alcohol Studies, and Earl Dowdy, Executive Director of the Virginia Youth Tobacco Project, talked about the overall VYTP effort to integrate research on youth tobacco use and prevention, both at VCU and at allied universities across the state. All in all, the visitors from VTSF were given a thorough – and hopefully interesting and useful – introduction to the facilities and people at work on their behalf at VCU.

Headline Roundup



Teens Smoked Out by TV Ads

The Herald Sun, Melbourne, AU
31 July 2003

Graphic anti-smoking ads showing gunk oozing out of arteries and blood clots in brains have had high success rates in turning teenagers off cigarettes, research shows.

The advertisements, part of the "Every Cigarette is Doing You Damage" campaign, were originally aimed at adults.

But research from the Cancer Council Victoria found the campaign has also had an unintended impact on adolescents.

The research, published in the British Medical Journal's Tobacco Control Journal, will be presented at an international conference in Finland this weekend. About 3700 Victorian students and 400 teens from other states were surveyed.

Co-author Melanie Wakefield, from the council's centre for behavioural research in cancer, said 85 per cent of the 12 to 17-year-olds surveyed said the ads made smoking seem less "cool" and desirable.

Eighteen per cent said the images had helped them try to quit, almost a third said they had tried to cut down as a result of the campaign, and a quarter said the ads made them think about quitting.

Smoking: It's Worse than Dirty Undies

The Age.com
30 July 2003

What makes teenagers sick with disgust?

Copping a shirt full of vomit, unflushed poo (left by someone else), the smell of urine, seeing someone's intestines fall out and being told a friend only changes their undies once a month.

They are the five most disgusting things, according to about 500 teenagers involved in a university study.

In Perth, Curtin University professor of behavioural research, Rob Donovan, said the results would form the basis for advertisements aimed at young people at risk of smoking.

He said the study found that linking smoking to disgusting stimuli could be more effective in dissuading teen smokers than advertisements focusing on the cost of smoking, its impact on relationships and fitness.

About 35 per cent of the non-smoking 14 to 18-year-olds involved in the study said disgusting stimuli would put them off smoking "a lot". This compared with 25 per cent who said focusing on fitness and the cost of smoking would put them off.

Draft advertisements shown as part of the study included one where a person retrieves a cigarette from a toilet containing poo, and one in which the cigarette becomes a pile of maggots.

Report Says Restaurant Jobs Unaffected by Smoking Ban

By Paul von Zielbauer
New York Times
29 July 2003

Employment in New York City restaurants and bars has increased slightly since the law restricting smoking went into effect on March 30, according to city health officials, defying predictions from critics that the industry would be harmed.

City employment figures for that industry show that jobs increased to 164,900 from 155,200 between March 11 and June 11, the Health Department said. That 9,700-job increase, part of a national trend, also represents an acceleration over the same period last year in the rate of jobs created by New York City restaurants and bars, the department added.

The department issued the report this week in response to the New York Nightlife Association and other critics of the new law, who said that the near-ban on smoking would cause restaurants and bars to lose business and, in turn, jettison employees.

"There's no evidence of a negative impact, and if there were a negative impact, we would have seen it," said Dr. Thomas R. Frieden, the health commissioner. "A lot of the rhetoric in the industry is off the wall."

But Robert Bookman, the lawyer for the New York Nightlife Association, said the city Health Department's report was wrong. "It's not the facts," he said, adding that he had researched bar and restaurant employment figures from the federal Bureau of Labor Statistics. "If you compare June 2003 compared to June 2002, employment is down," a trend that dates back to at least 2001, he said.

The Health Department's figures are "politically motivated," Mr. Bookman said. "We're not surprised that unemployment is up, and yes, we do think it's because of the smoking law."

But the majority of research seems to support the city. Studies in New York, California and elsewhere have shown that new restrictions on smoking in restaurants and bars do not result in a drop in business.

Headline Roundup

Child Growth Affected up to 2 Years when Mothers Smoke During Pregnancy

Clinical Pediatrics

1 July 2003, 42:533-541

Summary: Smoking during pregnancy causes intrauterine growth retardation, but the subsequent growth of these children is not well understood. Two hundred four newborns of mothers who smoked during pregnancy and 204 control neonates were studied. Children were re-examined at 1 and 2 years. Newborns of mothers who smoked 1-9 cigarettes/day had similar anthropometric parameters with the controls. Significant retardation in weight, length, and head circumference was present in the newborns whose mothers smoked ≥ 10 cigarettes/day. At follow-up, in children of smoking mothers the retardation of weight improved, head circumference remained stable, and length retardation increased even in children whose mothers smoked < 10 cigarettes/day.

Introduction: It is well established that smoking during pregnancy causes intrauterine growth retardation. Nonetheless, the subsequent growth of children whose mothers smoked in pregnancy is not well understood. It appears that defects in length and head circumference appearing at birth, due to maternal smoking during pregnancy, are maintained later in life, although a partial catch-up growth occurs. However, these studies have certain limitations because the data were collected by self-reporting or by mailed questionnaire or the findings were not correlated with the number of cigarettes smoked per day by the pregnant women, and the potential effect of passive smoking was not evaluated.

In addition, maternal smoking in pregnancy causes several endocrine abnormalities present in the cord blood of the newborns, some of which could be associated with retarded fetal growth. Specifically, the increased erythropoietin and hemoglobin concentrations found in newborns whose mothers smoked during pregnancy indicate the presence of chronic tissue hypoxia in such fetuses, which could be the reason for intrauterine growth retardation observed in these children.

The aims of this study were to investigate in children of mothers who smoked during pregnancy: (1) the intrauterine and extrauterine growth during the first 2 years of life; (2) the effects of maternal smoking during pregnancy on growth over time; (3) the effect of the mothers' passive exposure to tobacco smoke on infants' growth over time; (4) the contribution of other maternal factors on growth; and (5) a relationship that might exist between intrauterine and extrauterine growth and intrauterine hypoxia, as determined by cord blood erythropoietin concentrations.

Conclusion: Intrauterine growth retardation, in children of mothers who smoked during pregnancy is dose dependent, provided that the number of cigarettes consumed per day is ≥ 10 . Subsequently, during the first 2 years of life there is a differential growth of the parameters studied. Weight tends to normalize, the deficit in head circumference seems to be maintained, whereas length retardation increases even in the group of children whose mothers smoked < 10 cigarettes.

