Caffeine may inhibit nicotine

By Amy S. Garfe

Caffeine inhibits some physiological responses to nicotine, an MIT research team has discovered.

According to the team's report, which will be published in the September issue of Procedings of the National Academy of Science, adenosine (a substance found in tissue and blood) enhances nicotine's effect as a hypertensive (blood-pressure raising) agent. Caffeine inhibits the action of adenosine.

Red W. van Buren '78, one of the members of the research team, noted that this information should not provide "a false sense of security. Caffeine may protect against nicotine's blood-pressure raising effects, but it will certainly not have a protective effect against many other potentially harmful effects of cigarettes smoking," he explained.

By Diana ben-Aaron

Senior House residents are designing a pilot program to help combat drug abuse through peer support and internal referrals. Chair of Campus Police James Olivieri and Senior House president Stephen T. Lentz '86 said yesterday that the program, which targets at nitrous oxide use, has been well received.

Senior House housemasters S. Jay and Margaret Keyser have met with graduate tutors, house officers, and Campus Police twice to address the problem of nitrous oxide use, Olivieri said. A student living at Tau Epsilon Phi fraternity died from an overdose of nitrous oxide, five students were expelled from Senior House for nitrous oxide use, and two Senior House residents were arrested by Cambridge police for possession of the drug this spring, according to Olivieri.

The meetings produced a set of guidelines for the drug policy, Olivieri said. "This dorm is particularly interested in the development of a workable, reasonable policy," he commented, noting that the guidelines could be "a good reference document for other dorms."

"The program is, once an MIT employee -- such as a tutor, house manager, or housemaster -- sees a student taking drugs, MIT is liable for the student," Lentz said. He added that if the student who dies from an overdose of nitrous oxide had lived in a dorm and a tutor had known he was taking nitrous, MIT could have been sued.

On the other hand, Lentz noted, tutors live with students, "if they were policemen, it would be a pretty bad scene," he commented.

In its present draft form, the proposal calls for a written notice in the Office of the Dean for Student Affairs will have to approve the policy before it takes effect, Lentz noted. The group hopes to have the policy ready for next semester, but the approval process may delay it until later.

"If this flies, it will help the house to really consider on a peer-to-peer level what's going on in the house and how it will affect the whole house," Lentz commented.

"This is an internal structure that will help government deal with Campus Police enforcement policy internally and encourage the dorm to be partially self-policing," Olivieri explained.

Olivieri emphasized that the Campus Police enforcement policy would remain the same for all dorms. "There is a point where self-governing has to give way to the authority of policy," he said.

"The bottom line is, we will investigate whatever reports of nitrous oxide come to our attention by whatever means," said Olivieri.

The Campus Police rely on "internal structure -- housemasters, house managers, tutors, and students" for information, he explained.

"By investigation, we might mass making appropriate inquiries or calling the house," or we might knock on his door if the information we have received seems fairly solid," Olivieri said.

The police visit people either for discussion purposes or with a search warrant in hand, he emphasized. "We do not conduct illegal searches," he said.

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By Christopher Y. Kim

The renovation and modernization of the Kendall Square MBTA station has begun and will cost $7.000,000. The MBTA director of traffic and parking George O'Leary announced. Following renovations, the station will be renamed Cambridge Center-MIT.

The current Kendall station will remain open throughout the construction period. The station is expected to be completed in April 1986, according to Jim McGowan, the MBTA Construction Department project manager.

The reconfiguration work will give the subway station a much-needed overhaul, MBTA officials said. Train platforms will be lengthened to handle the longer trains that the MBTA plans to place in service by the end of 1986 when the Red Line will be in full operation between Alewife and Harvard stations.

The MBTA plans to extend each train by adding two additional cars compatible with the ones presently in use. "The six-car trains should reduce overcrowding and make travel on the Red Line substantially more comfortable," said MBTA general manager James F. O'Leary. While the Red Line is presently only long enough to accommodate four-car trains, other Red Line stations are already large enough for six-car trains, O'Leary noted.

"The installation of the platform allows the headhouses (subway entrances and exits) to be blocked off, and it will be possible to use the new platform without the Red Line cars being extended," said MBTA spokesman John J. Caffrey.

By Andrew R. Renz '83 and Professor Richard J. Wurmman of the MIT Media Lab.

In its present form, the project has been described as an "innovation in思想政治学理." The team discovered the caffeine-nicotine link accidentally, while studying the effects of adenosine on blood pressure regulation.

Ingesting adenosine into rats causes the rodent's blood pressure and pulse rate to drop. The team lumped to determine adenosine's effect on the rod experiment system, the amount needed to evoke a response, the amount naturally present, and whether naturally present adenosine acts as a blood pressure regulator.

The researchers hypothesized that naturally present adenosine might also enhance the effects of nicotine. If so, nicotine would have less of an effect on blood pressure in the presence of an adenosine inhibitor, such as caffeine. The researchers found this to be true.

Accurate knowledge of the caffeine-nicotine system may have important implications for drug design.

By Amy S. Garfe

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