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The Rockefeller University

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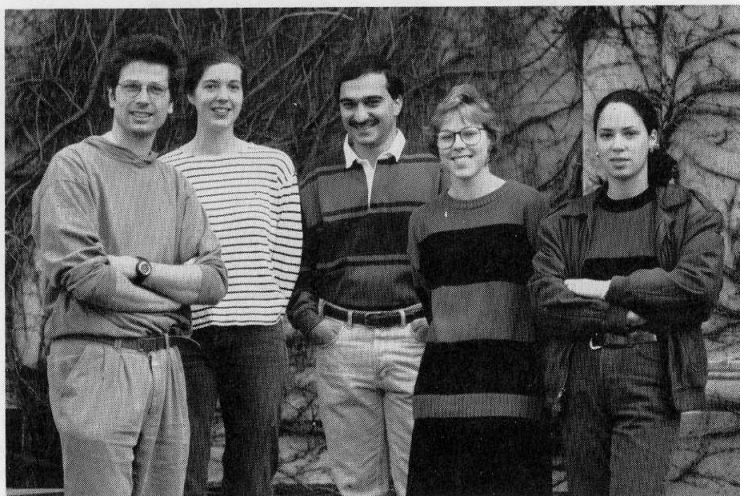
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news & notes

February 12, 1993 Volume 3, Number 19

The Rockefeller University



The Student Representative Committee is holding elections this week. Students active in the committee include (from left to right): Pierre Gönczy, Leslie Voss hall, Firdaus Dhabhar, Christina McKittrick, and Estela O'Brien.

Students vote for representatives

This week, 160 graduate and biomedical fellows who comprise The Rockefeller University student body will have the opportunity to vote for representatives of the Student Representative Committee (SRC). The ballots, collected yesterday (Feb. 11), will determine who will represent the first-year, third-year, and fifth-year and over classes, as well as who will be the spokesperson for single student housing.

"The SRC gives us a collective voice on matters affecting all of the students," said Firdaus Dhabhar, who has been an SRC representative for two years and is currently a nominee for third year representative. "It also allows us to invite members of the administration and specific departments for an open dialogue."

The SRC, established in the early 1970s, is composed of six student representatives, one for each year as well as one for biomedical fellows. One spokesperson for married student housing and one for single student housing also report to the SRC. Representatives, who serve a two-year term, meet with interested students and members of the administration on the first Thursday of the month to discuss

student issues. Minutes of these meetings are distributed to the student body.

Estela O'Brien, second year representative, said: "Being a part of the SRC is a very small time commitment. I accepted my nomination last year because I wanted to have some input into student affairs. I think that for the most part, if students here want something accomplished it can be worked out. Many students don't realize the extent to which they can get involved."

The SRC oversees several campus services, including the university vans, and maintains the student computer, storage, and television rooms. The SRC also organizes student events, such as the annual spring barbecue, and activities such as a clothing drive benefiting the St. Vincent de Paul charity.

In recent years, the SRC has been instrumental in directing the housing lottery and ensuring that students are suitably accommodated during renovations. Also, in consultation with the Housing Office, the committee developed a formal lease that has been tailored to meet

See *Students*, page 2

Former RU scientist to give lecture

Joseph R. Nevins, professor of microbiology and head of the Section of Genetics at Duke University Medical Center, will speak on "Cell Cycle Events Targeted by Viral Oncoproteins" in the Friday Lecture Series today (Feb. 12).

Recent findings in the Nevins lab may help to define a common mechanism for cancer-causing viruses. "Since leaving Rockefeller, Nevins has continued his studies of the link between cell growth and DNA tumor virus transformation," explained Professor Nathaniel Heintz, who is hosting the lecture. "Recent discovery of E2F as a target of both viral oncoproteins and cell cycle regulatory molecules represents an exciting breakthrough in this field."

Nevins, who was at The Rockefeller University from 1976 to 1987, is a Howard Hughes Medical Institute investigator.

Nevins has served on several prestigious advisory committees. He is a member of the Scientific Advisory Board for the Gladstone Institute of Virology and Immunology at the University of California at San Francisco, as well as the Scientific Advisory Committee for the Life and Health Insurance Medical Research Fund. This year, Nevins was named vice chairman of the Alfred P. Sloan Award Selection Committee for

See *Lecture*, page 2

University offers night parking

Thanks to an enterprising individual who spoke to President Torsten Wiesel during his new office hours, parking will be offered on an experimental basis to university members at night and on weekends and university holidays.

"The parking lot, which is oversubscribed during the day, empties out at night," said David Lyons, vice president for business and finance, and treasurer. "The spouse of a Rockefeller graduate student or postdoc who drives to work can now come home and leave the car in a Rockefeller lot."

Forty spaces in the North lot will be available for parking between 6:00 P.M. and 7:00 A.M. on weekdays, and all day Saturday, Sunday, and university holidays. The parking will be offered on a monthly basis, at a cost of \$75 per month, plus tax.

Applications for night parking will be available from Erika Mueller of Plant Operations, Boiler House 105, as of March 1. Priority will be given to those most in need. For more information, call Mueller, x8001.

The president will continue to hold office hours from 2:15 to 3:15 P.M. on Fridays.

Dinner dance sets sail

To combat the mid-winter blues, a tropical cruise featuring tango dancers, exotic drinks, and nautical paraphernalia will be the theme of this year's university dinner dance. The event will be held at 8:00 P.M. on Fri., Feb. 19, in Abby Aldrich Rockefeller Hall.

Tickets—\$25 per person

or \$40 for those who wish to support the event—are still available, but are selling fast. They can be picked up from the Purchasing Department, the Faculty Club, the Personnel Office, the Cashier's Office, Media Resources, Hospital 106, or the Deans' Office (for students).

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300-page guide to romance

Author dedicates book to RU valentine

Although he is married, Leon Maleson, database coordinator in Faculty Administration, will be looking in bookstores for *Guerrilla Dating Tactics: Strategies, Tips, and Secrets for Finding Romance* (Dutton: New York), when it is published this Valentine's Day. That's because the book's author, Sharyn Wolf, is his wife.

"Sharyn's book contains a lot of common sense about dating," Maleson said. "It's a fun book to read, full of lively stories. The book talks about ways to meet people, and about relating to others and overcoming your own fears. We've all been successful and unsuccessful in finding romance. The book talks about some of the more successful techniques."

Wolf, who is a psychotherapist and workshop leader, gives advice about striking up a conversation, flirting, first dates, who pays for what, and safe sex, among other topics. Wolf encourages a creative, playful, and active approach in all spheres of dating. For example, if you are standing in line behind someone you want to meet, drop

change so he or she can help you pick it up. Or pretend your watch is broken so you can ask the time.

Did Wolf use some of her guerrilla tactics when dating Maleson? "I used some on her," Maleson quipped.

Maleson, who proofread hundreds of pages of the book in draft form, seemed surprised when it was pointed out that Wolf describes, in some detail, how they met and began going out. "I don't know how she snuck that in there," he said.

According to the chapter "Terminal Buddyhood: How to Get Past Being Pals," after a year of knowing Maleson, Wolf "began not just to like him, but to like him." By lingering after one of his performances (Maleson plays jazz bass professionally), Wolf succeeded in luring him back to her apartment for a nightcap. "At my apartment, I waited close to an hour for him to kiss me," she writes. "Finally I kissed him. He couldn't get out of my apartment fast enough."

Maleson's version of the story is quite different. He spent a year



Leon Maleson, database coordinator in Faculty Administration, poses with his wife, Sharyn Wolf, whose book on dating will be released on Valentine's Day.

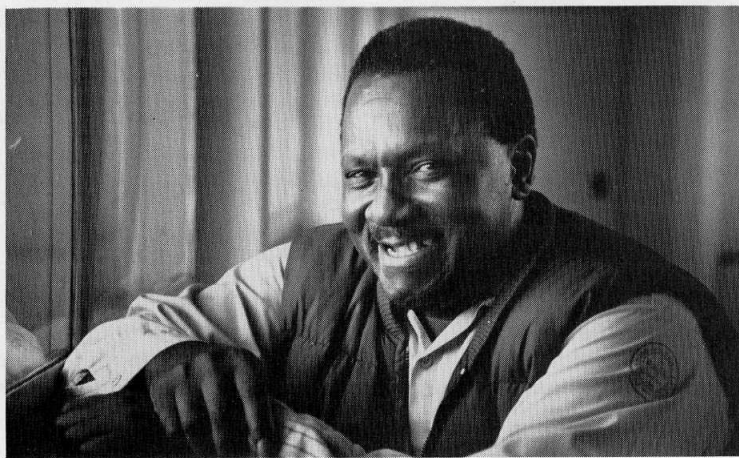
trying to get Wolf interested in him, then finally succeeded in making a date with her. "That night I just didn't want her to think I was moving too fast," Maleson said.

No matter who used guerrilla dating tactics on whom, they seem to have worked. The couple was married a year and a half ago, and both agree the marriage has been great. In fact, the dedication of

Guerrilla Dating Tactics reads, "To 'Boots' Maleson, my best date."

Wolf is currently on a whirlwind, 15-city publicity tour for the book, with interviews lined up with television and radio stations, magazines, and newspapers. On Sunday—Valentine's Day—she will be in Seattle. Maleson plans to fly out to meet her there so they can spend a romantic day together.

Profiles



Herbert Gibbs

Job: Day porter, Custodial Services

Number of years at The Rockefeller University: 20

How long he plans to stay: until retirement

Favorite part of his job: saying "hello" to everyone he sees during the course of a day, and "the nice people" he works with

Born: McClellanville, South Carolina

Age: 48

Marital status: single

Number of brothers and sisters: 6

Number of nieces and nephews: 13

Number of grand-nieces and grand-nephews: 8

Pastimes: taking walks around his neighborhood in the Bronx during the summer, visiting family, watching movies (especially those with Clint Eastwood), reading *The New York Post* on weekdays and Saturdays and *The New York Daily News* on Sunday.

Molecular virologist to give Friday lecture

(continued from page 1)

the General Motors Cancer Research Foundation.

Nevins is editor of *Virology* and of *Cell Growth and Differentiation* and serves on the editorial boards

of *Molecular and Cellular Biology*, *Nucleic Acids Research*, *Journal of Virology*, and *Oncogene Research*.

The lecture, to be held in Caspary Auditorium at 3:45 P.M. and preceded by a tea at 3:15 P.M. in the Abby Aldrich Rockefeller Hall dining room, is free and open to the Tri-Institutional community.

Students vote for next SRC representatives

(continued from page 1)

student needs.

Bruce McEwen, professor and dean of graduate and post graduate studies, who is a former graduate fellow of the university (1959-64), said: "Students at Rockefeller have special concerns. They need to air these and we need to hear and recognize them. So the SRC makes a very good forum for discussion."

"I take my hat off to the students on the SRC who assume responsibility for these issues," he continued. "The job requires a sort of altruism on their part which deserves to be recognized."

Election results will be announced in an upcoming issue of *News&Notes*.

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Following the developmental path from egg to organism

By Mika Ono Benedyk

When children ask where babies come from they often treat the answer given to them with some skepticism. Indeed, the truth does seem rather unlikely. How can an egg and sperm develop into a complete organism with eyes, legs, arms, a torso, and a head?

The laboratory of Associate Professor Claude Desplan is trying to answer this question on a molecular level: "We know that a fertilized egg contains genes from the mother and genes from the father. And, we know the identity of most of the genes important in early development. What our lab is trying to figure out is how these genes are controlled in the fertilized egg's genome and turned into an organism."

Specifically, the organism that the Desplan lab is studying is the fruit fly, *Drosophila*, which has been one of the mainstays of genetic research because it is a simple organism which breeds quickly and prolifically.

"The average person doesn't care about understanding the fruit fly," said Desplan, "but studying the fruit fly allows us to look at the general mechanisms of development that we believe apply to all mammals, ourselves included. We usually find that genes in the fruit fly have parallel genes in mice, humans, and other species."

Scientists now know that the development of an embryo occurs as a long, complex chain reaction where genes send a series of mes-

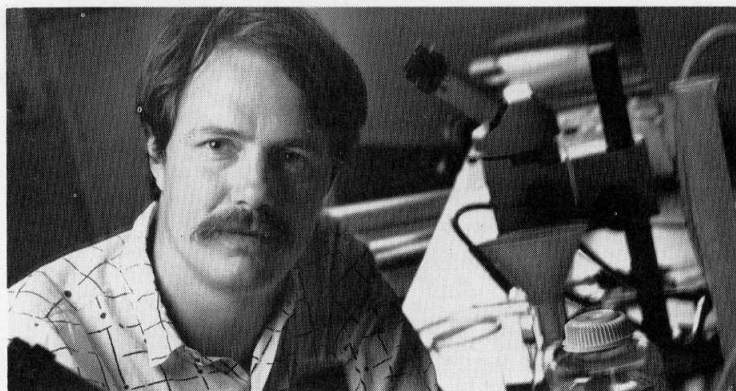
sages to other genes. For example, gene A turns on gene B; gene B turns on gene C and D, while simultaneously turning off gene A.

As the message progresses through the genetic network, its content becomes more and more refined. Finally, the embryo's cells receive all the information needed to form their specific identities—head cell, eye cell, or hair cell.

A gene called *bicoid*

One of the genes that is essential in establishing the body pattern of the fly is *bicoid*. *Bicoid* is a gene necessary in the mother for the correct development of her embryo's anterior structure. Its product is supplied as RNA transcript and localized in the anterior tip of the egg. Very early in development—while the embryo is still one large cell with a number of nuclei scattered throughout it—the *bicoid* RNA is translated into a large amount of Bicoid transcription factor, a protein product which diffuses along the axis of the fertilized egg. A gradient of Bicoid protein results, with the highest concentration in the anterior tip of the egg, near the RNA, and the lowest concentration in the posterior, farthest away from the RNA.

"Nuclei across the cell respond differently because of the gradient," Desplan said. "If there is a lot of Bicoid product, the nuclei express *otd* and *hunchback*, genes which together direct the formation of a head. If there is less Bicoid product, nuclei express only *hunchback*, which directs the formation of a thorax. In the absence of Bicoid



The laboratory of Associate Professor Claude Desplan seeks to understand the molecular mechanisms of early development.

product, they express genes responsible for abdomen formation."

In other words, the Bicoid product gradient sends the signal for the basic pattern of the fly: head at front, thorax in the middle, and abdomen at the back.

Experiments that have manipulated *bicoid* underline its importance. If *bicoid* is removed, the whole embryo begins to become an abdomen—without head or thorax. If extra copies of *bicoid* are inserted, more nuclei express genes responsible for head and thorax development, while fewer nuclei express genes responsible for abdomen development (see illustrations).

The search for molecular mechanisms

The Desplan lab is trying to unravel the exact mechanism of how *bicoid* acts on target genes to produce such diverse effects. To do this, they work with the Bicoid protein, and try to identify the precise stretch of DNA on the target genes that this transcription factor recognizes and binds to.

The Desplan lab also works with other genes involved in early development, and their protein products. In particular, the lab is interested in proteins that have a common motif of amino acids called a homeodomain, as well as the genes these proteins bind to. *Bicoid* is included in this class of genes, which are, in general, involved in pattern formation.

"Our lab builds on the previous work of geneticists who have isolated and cloned the genes important in the early development of *Drosophila*," said Desplan. "A lot of work has gone into figuring out what these genes are and what they do. Our lab takes these pieces of the puzzle and tries to see how they fit together, what the mechanisms are that allow them to interact with one another."

One experimental approach the

lab uses to understand this interaction focuses on the homeodomain of a protein. This domain is responsible for targeting the protein in which it is embedded to an effector gene. By dissecting and modifying the homeodomain *in vitro*, the lab addresses the molecular function of the protein, investigating the questions of how the protein binds to DNA and how it interacts with other factors.

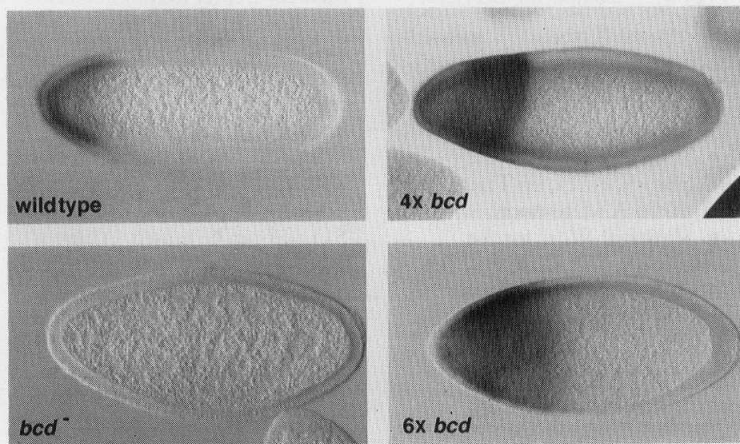
"For instance, we use a powerful selection method to identify the optimal DNA-binding site for a given homeodomain," said Desplan. "After modifying the structure of this homeodomain, we run the selection again and analyze what new DNA sequence it recognizes. This allows us to define the function of differences between homeodomains."

The acid test: actual embryos

When these *in vitro* functions are understood, the lab goes on to perform experiments with actual embryos. The lab can place a modified protein in the context of the developing embryo and analyze the consequences of the modifications. For example, a developmental protein can be modified so it targets a different gene, or so it suppresses an interaction between gene products.

"It is very important to see if the model we construct *in vitro* holds true in an actual fly embryo," said Desplan. "When we can say we understand what is happening in the actual embryo, we take a giant step toward being able to reconstruct the whole machinery of development."

"One day, we may understand the mechanisms of development so well that we will be able to look at a protein and say, 'based on its structure, this protein is likely to have this function.' That is where we're headed. But there are many years of research to be done before we reach this level of understanding."



A gene in the mother called *bicoid* (*bcd*) is required for the early development of the fruit fly. The Bicoid protein product directs body pattern formation of the embryo. **Top left:** In normal embryos, the Bicoid product activates genes responsible for head and thorax development in the anterior tip of the embryo. **Bottom left:** If the embryo comes from a mother lacking *bicoid*, no Bicoid protein is present and Bicoid's target genes are not expressed. **Right:** When the mother contains extra copies of *bicoid* (top, 4 copies; bottom, 6), the domain of expression of the Bicoid target genes is expanded.

Parlez-vous français? Español?

"Alors, c'est vous le nouveau locataire. Vous n'avez pas d'animaux j'espère, parce qu'ici, c'est déjà un zoo!" ("So, you're the new tenant. I hope you don't have any animals, because this place is already a zoo!")

It is lunchtime, and members of The Rockefeller University are spending the hour listening intently to a small tape recorder as part of their weekly French lesson. The hour is almost up and the students have learned that life in a French apartment building is not too dissimilar from what they experience in New York City. After switching off the tape, French teacher Anne-Lise Vernier prompts a conversation with her beginner students before dismissing the class.

Elizabeth Oliveira e Silva, a research associate in the Breslow lab who started taking the classes in the fall, remarked: "These are not like traditional language classes. They are taught through situations that we can easily relate to." Fellow students Lyudmila Soldatova, research associate in the

King lab, and Ashis Mukherjee, postdoctoral associate in the Agosta lab, agreed. "It's more fun this way," added Soldatova, who is taking the class because she is leaving soon for Switzerland. "We may not always understand the individual words, but at least we learn the context."

French, Spanish, and English as a Second Language are taught on campus, sponsored by the Deans' Office. Graduate students are responsible for scheduling the classes and identifying new enthusiasts.

Barbara Kazmierczak, biomedical fellow in the Zinder-Model lab, started taking the beginner French classes when they were first offered in 1986. Now she helps organize the classes and attends the advanced classes. "It's not easy teaching a class here because people are so busy that they cannot attend regularly as they might in college," she said. "The teachers do a great job of creating a flexible program that can always accommodate new faces."



French teacher Anne-Lise Vernier (center) teaches Christina McKittrick (left) and Susan Powell the subjunctive tense.

"Several people have attended these classes in order to prepare for sabbaticals or overseas conferences," Kazmierczak continued. "The classes are also useful for anyone collaborating with foreign scientists."

The schedule for French classes has changed recently. They now meet as follows: beginner level, on Mondays at 11:00 A.M. in Caspary 1A; intermediate, on Wednesdays at noon in Flexner 363; and advanced, on Wednesdays at

11:00 A.M. in Flexner 363.

Spanish classes, taught by Elizabeth Cordoba, meet: beginner level, on Wednesdays at noon in Caspary 1A; and intermediate, on Wednesdays at 1:00 P.M. in Caspary 1A.

English-as-a-Second-Language classes, taught by Tom Pallo, meet: beginner and intermediate levels on Mondays, from 6:30 to 8:30 P.M., in Caspary 1A; and advanced, on Thursdays, from 6:30 to 8:30 P.M., in Caspary 1A.

Potpourri

Tri-Institutional Noon Recital Pianist David Owen Norris, winner of the first Irving S. Gilmore Foundation Artist Award in 1991, will play at the Tri-Institutional Noon Recital today (Feb. 12). Gilmore artists are chosen through a selection process that secretly evaluates pianists around the world for two years. Candidates are not told they are being considered. Norris was selected from among 50 candidates by a 13-member jury of

musicians, including violinist Yehudi Menuhin.

Norris is professor and fellow at London's Royal Academy of Music and fellow of the Royal College of Organists. Known for his unusual repertoire and diverse interests, Norris directs the Petworth Festival in West Sussex, England, a festival for amateur and professional musicians, as well as kite and hot air balloon enthusiasts.

At today's performance, Norris will play works by Achille-Claude Debussy, Johannes Brahms, and Joni Mitchell. The concert, to be held in Caspary Auditorium at noon, is free. All are welcome.

Valentine's Day lunch

The annual Valentine's Day luncheon will be held today (Feb. 12), in the Tower cafeteria and 17th floor dining area. The luncheon will offer Manhattan clam chowder, a choice of steak or fried shrimp, a baked potato, vegetable, choice of dessert, and choice of fountain beverage or coffee. Diners whose plates have stickers win a Valentine's surprise. Reservations are recommended for the 17th floor dining area, x8890.

64th Street gate

The Security Department announces that the 64th Street gate will be closed from 11:00 P.M. tonight (Feb. 12) to 7:00 A.M. on

Tues., Feb. 16, due to the holiday weekend.

Apple demonstration

Representatives from Apple Computer will demonstrate the firm's latest products from 10:00 A.M. to 4:00 P.M., on Thurs., Feb. 18 and Fri., Feb. 19, in Caspary 1B. Refreshments will be served. For more information, contact Anthony Popowicz, Computing Services, x8112.

Computer workshops

Spaces are available in the the following computer workshops:

- Microsoft Word for the Macintosh, Part I, on Thurs., Feb. 25, 10:00 A.M. to noon;
- Microsoft Word for the Macintosh, Part II, on Fri., Feb. 26, 10:00 A.M. to noon.

To register, leave a message at x8935.

Tax forms

Members of the Rockefeller community may pick up tax forms on the second floor of Founder's Hall, on a table across from Room 215. For information concerning tax materials that are not on the table, contact Deborah Sousa, x8345. Sousa emphasizes that she is not qualified to give tax advice.

Birth

Ginny Losito, formerly of

Sponsored Programs, and her husband, Dan, became parents of a baby boy, Christopher Charles, on Jan. 25. Christopher weighed 7 pounds, 5 ounces, and was 21.5 inches long.

Photocopy cards

Cards for the self-service photocopiers at Memorial Sloan-Kettering and Cornell University Medical Center libraries can now be purchased at the Media Resources. The cards, which can be purchased for cash (exact change only) or charged to a laboratory or grant budget, differ in price and function. The Memorial Sloan-Kettering card costs \$12 and is disposable. The Cornell card costs \$13 and can be reused. There is a small service charge for both cards.

Rockefeller University Today

The Winter 1993 issue of *The Rockefeller University Today* has been published. Copies are available from the Public Affairs Office, on the second floor of Nurses Residence, during business hours.

Discount

Harlequin Optique, 1176 2nd Ave. at 62 St., is offering Rockefeller University personnel a 20 percent discount on a complete set of eyeglasses or contact lenses. Call George Monaco, 750-0555, for more information.

Steve J. Sherman



Pianist David Owen Norris will play at the Tri-Institutional Noon Recital today (Feb. 12).