



CHEM NEWS



NEWSLETTER #25 DEPARTMENT OF CHEMISTRY
LEHIGH UNIVERSITY FEBRUARY 1999

NEWS OF THE FACULTY

"Blame it on Gold" was the title of an abstract-review which appeared in *Analytical Chemistry - News and Features* (December 1, 1998, p. 768A). The report condensed an article by **Professors Michael S. Freund and Gregory S. Ferguson** which appeared in *Langmuir* 1998, **14**, 6419-6423.

Assistant Professor John W. Benbow (BS '82) will join Pfizer Pharmaceutical, Groton, CT, as a Senior Research Scientist in the Cardiovascular and Metabolic Pathway Division. John commences his new challenge in September.

Raymond R. Myers (BS '41; PhD '52), Honorary Lehigh Chemistry Professor, died of a heart attack in Bethlehem on October 21. Ray was an alumnus and a Professor in the Department from 1952-1965 when he left to assume the Chairmanship at Kent State University. Ray was voted the unique distinction of honorary professor. Internationally known for his work in coatings chemistry, at Lehigh Ray directed the Paint and Varnish Institute.

Representing the ACS at a Biomedical Symposium held in December in Delhi and at the dedication of an International Landmark to Sir C. V. Raman's spectroscopy research in Calcutta (India) was **Professor Ned D. Heindel**. Ned spoke on his research on cholinesterase inhibitors for Alzheimer's disease.

Assistant Professor Marie Messmer was recently awarded a four-year NSF Career grant entitled "The Molecular Basis for Interfacial Properties: *In Situ* Sum-Frequency Spectroscopic Investigations." The funding supports Marie's research in nonlinear optical studies of organic modified surfaces.

Associate Professor Gregory S. Ferguson was granted a cross-appointment as Associate Professor of Materials Science in Lehigh's Department of Materials Science and Engineering. Greg has been a member of the chemistry faculty since 1990. Greg has been notified that his Office of Naval Research grant on "Influence of Macromolecular Architecture on the Mobility of Polymer Chains at Interfaces" has been renewed for three years at \$357K.

Associate Professor James E. Roberts was named Conference Chairman for the 5th National Graduate Student Polymer Conference (sponsored by the ACS Division of Polymer Chemistry). The conference will be held at Lehigh in 2002.

Lehigh Chemistry faculty have been active in patenting promising technologies. **Assistant Professor Michael Freund** was recently granted a patent for his "Light Directed Chemical Modification of Fluoropolymers." Michael's co-inventor was **Lisa Regalla (BS '98 in Chemistry and currently working on BA in Theater)**.

Professor John Larsen and Tracey McCracken (MS '96) were awarded a patent for "A New Process for Nitrating Aromatics." The Larsen-McCracken patent has been assigned to Crompton and Knowles Corp., while the Freund-Regalla patent is available for licensing.

(continued next page)

NEWS OF THE ALUMNI

Van R. Reiner (MS '72) was named President of Bethlehem-Lukens Plate, a wholly-owned division of Bethlehem Steel formed after Steel's merger with Lukens. Van began as a chemist with Steel in Lackawanna, NY.

Named to the Editorial Advisory Board of the ACS *Journal of Pharmaceutical Science* was **George Famini (ABD '89)**. George is a staff scientist at the Army's Edgewood R&D Facility and Aberdeen Proving Grounds, MD.

Aaron R. Ettelman (BS '95) has left a post as Technical Liaison at Henkel Corp. to join the patent law firm of Panitch, Schwarze, Jacobs & Nadel (Philadelphia). Aaron is finishing his JD at Temple. Aaron reports that he is the third Lehigh scientist turned attorney at PSJ&N.

Cyrus J. Ohnmacht (PhD '66) authored "Recent Advances in Neurokinin Receptor Antagonists," in *Annual Reviews of Medicinal Chemistry* (1998). Cy is a Senior Research Scientist at Zeneca Pharmaceuticals in Wilmington.

Mike Kirchner (BS '89), on behalf of his employer, Noramco Corporation of Delaware, has donated an infrared spectrophotometer for undergrad teaching as well as a research-grade HPLC and a series of analytical balances.

Xiaojie "Jill" Zhu (PhD '94), a Research Scientist at the National Institutes of Health, died September 13, 1998 in Bethesda, Maryland. Jill succumbed to metastatic liver cancer.

Thomas Neiss (PhD '90) has left Hercules for a position as Senior Scientist in NMR Research at Dupont Pharmaceuticals, Deep Water, NJ.

"I enjoyed the September newsletter, especially the picture of Schray with those lovely old instruments. In fact, I showed it to my wife and commented, 'Keith Schray is now the Department Chairman and he joined the faculty when I was an undergrad. He had hair back then, though.' My wife didn't even pause. 'So did you!' she said. And, of course, she's right." [message from **Dr. Robert Seevers (BS '76)**, Chemistry Team Leader, FDA, Washington, DC].

Transferring from Wyeth-Ayerst's Research Labs in Pearl River (NY) to the company's new Women's Health Research Center in Radnor (PA) was **Gene Terefenko (MS '96)**. **Sandra [Thomas] Terefenko (MS '93)**, obtained her medical degree at PCOM and is currently in the Residency Program at St. Luke's Hospital (Bethlehem). The Terefenkos live in the Quakertown area.

Dr. Frank L. Douglas, Ph.D., M.D. (BS '66) was named as head of Drug Innovation and Approval for the newly merged corporation of Rhone Poulenc Rorer and HMR Pharmaceuticals to be known as Aventis Pharma. Frank has had a long and productive career in pharmaceutical research management, including serving as Senior Vice President for Research of Ciba Geigy Pharmaceuticals and Executive Vice President for Marion Merrell Dow.

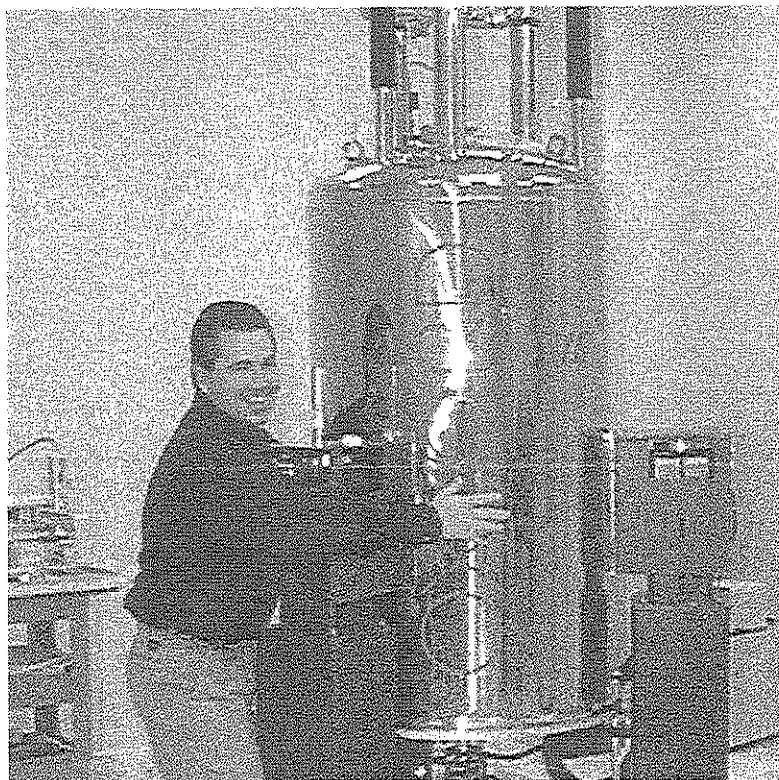
Dr. Marsha Miller (MS '92) obtained her PhD in Pathology at the University of Pennsylvania at the Fall 1998 commencement and joined the staff of Global Clinical Communications as a scientific/medical writer. Marsha has been assigned to assist the regulatory affairs group at Wyeth-Ayerst Pharmaceuticals in Radnor.

David Grason (BS '69) writes that his cousin's son, **John Peter Grason (BS-Biochem '99)** is now at Lehigh continuing the family tradition in chemistry. Dave is employed by the U. S. Geological Survey as the Associate Regional Hydrologist for the Northeastern Region. He adds, "I appreciate reading the Departmental Alumni Newsletter. It helped me make contact with my classmate, **Eric Fairfield (BA '69)** who now lives in New Mexico."

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GET TO KNOW A SATELLITE STUDENT

Talk about a man who loves his toys! Here's Paul Krolikowski of Rhone Poulenc Rorer with his favorite supercon. Paul tells us, "I've been employed at RPR for seven years and six of those I've spent working in the NMR lab. I've also been pursuing my MS in bio-organic by satellite since Fall 1994. While that seems like a long time, I can actually see the light at the end of the tunnel. You know, the Philly area has several universities which offer Masters programs to part-timers, but Lehigh's was the only one to do it by satellite. Commuting down to Philly in the evenings wasn't my idea of a fun time, so I chose Lehigh for versatility and flexibility it offers. The program has certainly been challenging and rewarding.



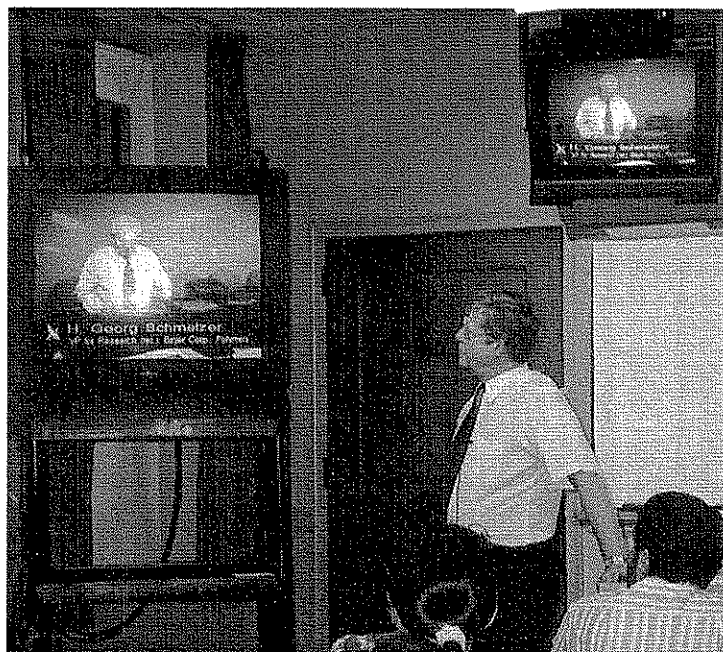
I've taken most of the summers off from school to give myself a chance to recover from the intense 'magnetic field exposure.' That fact goes a long way in explaining why I'm still in the program. During those summers I've been known to do some backpacking and fishing, and for some strange reason I seem to enjoy both of these activities best in the Rocky Mountains of Wyoming.

Paul has some sage advice to other Distance Ed students, "Just remember, when times get tough, keep repeating to yourself, 'If I don't finish this course, my company won't reimburse me!'" [Paul, we're looking forward to seeing you at Commencement soon. Editor]

Paul Krolikowski, distance ed grad, (above) simply adores his NMR!

WE WANT TO REMEMBER YOU

Don't forget us. The Department would love to know what you're doing. Our postal address and phone number appear on this newsletter. Our FAX is (610) 758-6536 and our chairman's e-mail is kjs0@Lehigh.edu. Check out our two Web Sites. For general departmental programs see <http://www.Lehigh.edu/~inche/inche.html> and for information about our Lehigh Education Satellite Network (LESN) just click on <http://www.LESN.Lehigh.edu>. We welcome Parke-Davis Pharmaceuticals and Bristol Myers Squibb as our latest downlink partners in LESN. Negotiations are underway to add our first foreign affiliates. Please keep in touch.



H. Georg Schmelzer, (shown on left) Bayer Corporation Vice-President for Polymer Science (ret.), recently presented a lecture on polyurethanes in the satellite course on Organic Polymer Chemistry. Dr. Schmelzer was connected to students in nine companies and at Lehigh by video-link from Bayer's Bushy Park R&D Site in South Carolina. Four industrial polymer chemists from Bayer, DuPont and Air Products delivered guest lectures in the course.

Dr. Schmelzer's company, Bayer, is one of the corporate supporters of the Lehigh Educational Satellite Network with a down-link node at their pharmaceutical production site in New Martinsville, West Virginia.

The Polymer Science and Engineering MS degree track has been the latest major to be added to the LESN Distance Education offerings. The degree is open to BS-holders from Chemistry, Chemical Engineering, Materials, and other Engineering departments.

CONGRATULATIONS TO OUR JANUARY GRADS*

Doctoral graduates

Katherine V. Ferry	Chem.
Xingtao Gao	Chem
Joseph G. Joyce	Biochem [Merck]
Marilyn S. Whittemore	Pharmaceutical Chem [Buckman]
Robert Hendel	Chem. Engin.

*[Employer] is noted for those Distance Ed/Corporate employed students.

Masters graduates

Matthew Curry	[DuPont Pharmaceuticals]
Virginia Hunsberger	[Armstrong World]
Susan Gomolka	[Merck]
An Lam	
Angela Mendel	
David Roberts	
Jay Schultz	[3M]
Joel Schwartz	[Air Products]



Four January Commencement graduates include (l to r) Marilyn S. Whittemore (Lehigh's first Distance Ed PhD - Buckman Labs), Angie Mendel (MS - Zeneca Pharmaceuticals), Robert Hendel (PhD - US Naval Laboratories), and Jay Schultz (Distance Ed, MS - 3M Corp.)

Returning to the campus for a visit after a 23-year absence was **Matt Werner, M.D. (BS '76)**. Matt obtained his medical degree at Hahnemann, took his Boards in obgyn, and currently practices on the staff of the Culpeper Memorial Hospital in Culpeper, Virginia. Good to see you in Mudd again, Matt!

The report from Palm Harbor (FL) is that **Charles Carter (BS '41)** is enjoying retirement from Atlas/ICI by assembling his family genealogy back to his Welsh ancestry, repairing an organ for his church, and frequenting the links on a nearby golf course.

Marcian Van Dort (PhD '83), Research Scientist at the University of Michigan, was awarded an NIH grant for his research in "Non-steroidal Antiandrogens for Prostate Tumor Imaging."

Lehigh graduates, students, and staff were well represented at the 1998 Annual Meeting of the American Association of Pharmaceutical Scientists. **Dr. Mark T. DeCrosta (BS '80)**, Research Scientist at SmithKline Beecham, presented a paper on "Thermodynamic Analysis of Drug Compaction." **Dr. James S. Stefely (Res. Sci. 1990)**, co-authored "Metabolism, Distribution and Toxicity of Oligomeric Lactic Acids." Jim is a research chemist in the Biomaterials Center at 3M in St. Paul. **Sunil V. Jain (current M.S. student)** presented a paper on a "Gel Extrusion Module Controlled Release Device." Sunil is a Distance Education Satellite student at Merck - West Point. **Visiting Research Scientist Harry G. Brittain** received the Society's premier award, the Merck Award in Analytical Chemistry, for his creativity in introducing new characterization methods for pharmaceuticals. Harry is Vice President at Discovery Laboratories in Doylestown.

Jerry Miller (PhD '80) has relocated from Credit Management Solutions, Inc (CMSI) in Columbia, MD, to SUNY-Stony Brook, where he is Senior Research Scientist in Computer Science. Jerry is blending his love for synthetic organic and computer science by working on the SYNCHM expert system, a predictive data base for synthesis planning. Jerry refers the curious to <http://www.cs.sunysb.edu/~synchem>.

Satellite/Distance Ed graduate **Ann L. Gray (MS '98)** has published her MS research project, "Novel Sulfonic Acid Modified Starburst Dendrimer as a Pseudostationary Phase in Electrokinetic Chromatography," in the recent issue of *Journal of Chromatography A*, 824, pp. 119-124 (1998). Ann's advisor and coauthor on the project was Professor James Hsu. Critical to the success of Ann's investigations was the availability of a GTI-SpectroVision on-column UV detector and power-supply designed and manufactured by GTI-SpectroVision of Acton, MA. The company's founder and president is **George E. Barringer (PhD '79)**. Ann is currently employed by Sivent (a Huls-Degussa Corporation) in Piscataway.

Stephanie Corrao Hamel (MS '88) received a PhD in Environmental Sciences in 1998 from the University of Medicine and Dentistry of New Jersey. Steph joined Rutgers' Plant Sciences Department as a Project Scientist working in soil fertility research. She remarked about the Rutgers commencement that "I didn't get enough time on the platform during the graduation. I don't like to be treated like cattle being herded to slaughter! I could have stayed and bowed for much longer." (same old Stephanie!)

Dr. Mark Pavlin (BS '72) has relocated from New Jersey to Savannah, Georgia, to join Arizona Chemical, the merged research unit created from Union Carbide and International Paper. Mark's department is Development and Technical Services.

Greg Pomrink (MS '98) has relocated from Betz-Dearborn to Orthovita in Malvern (PA) as a Research Scientist.

We heard from **Erik M. Gregorie, M.D. (BS '75)** who fondly remembers taking five semesters of organic chemistry (including graduate courses) during his Lehigh years. Erik took his M.D. and his neurosurgery residency at Washington U and is now on the staff of the Robert Packer Hospital in Sayre, PA. Erik's classmates can reach him at erikmg@cyber-quest.com.

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Named to the Deanship at the University of Scranton was **Joseph H. Dreisbach (PhD '77)**. Joe, whose Lehigh doctorate is in Biochemistry was formerly Chairman of the Department of Chemistry at Scranton.

Another biochem grad on the move is **Roger K. Sandwick (PhD '86)** who was recently elected President of the Sigma Xi Chapter of SUNY-Plattsburgh. Roger is Associate Professor of Biochemistry at Plattsburgh.

Dr. Mary Rose Scozzafava (BS '82) has joined the law firm of Choate, Hall & Stewart as a patent attorney. Mary Rose took her PhD in Inorganic at MIT (1989), her postdoc in materials at MIT, and her J.D. at Suffolk Law School (1997). In addition to amassing considerable education Mary Rose remarked she has "found the time to raise three wonderful children."

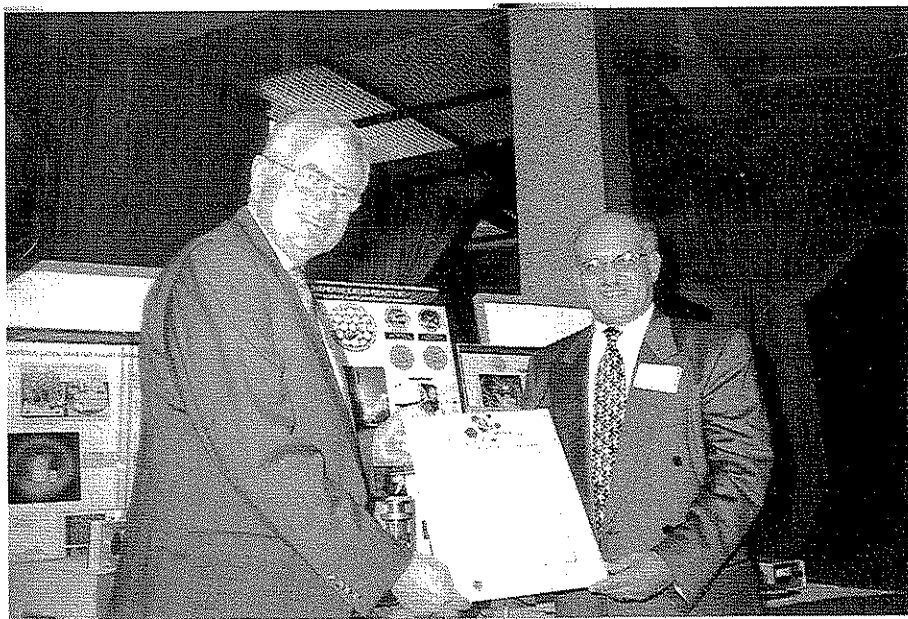
January graduate **Angela Mendel (MS '99)** was interviewed and photographed with her poster at the ACS Boston meeting in the December 1998 issue of the ACS magazine *In Chemistry*. The article, "Industry Demand for M.S. Graduates is Hotter than Ever", focused on current industrial hiring practices.

Nancy Dodrer-Arabinick (PhD '90) has joined the R&D Labs of Liposome Corporation in Princeton (NJ) as a Research Scientist. Nancy was formerly in the Peroxygen Chemical Division of FMC Corporation.

Retiring from the Research Department of CT Specialties, **Daniel Lima (Visiting Research Scientist '88 -'91)** has become an Adjunct Faculty member at the University of North Carolina.

FIRST ACS "GLOBAL SALUTE TO POLYMERS" AWARD

American Chemical Society President Edel Wasserman visited Lehigh on November 20th and presented the first Global Salute to Polymers award to its Emulsion Polymers Institute (EPI). The plaque honors EPI's achievement in carrying out the first polymerization reaction in space. A Lehigh team headed by Chemistry Professors Emeritus John Vanderhoff and Fortunato Micale and Chemical Engineering Professor Mohamed El-Aasser designed a reactor to synthesize polystyrene latex in zero gravity and sent their unit aloft on the Challenger STS-6 in April 1983. The monodispersed latexes generated and sold as a result of this experiment became the first products manufactured in space.



Pictured above is Edel Wasserman awarding the Global Salute to Polymers award to Mohammed El-Aasser.

HISTORY AND TRADITIONS

Lehigh's Department of Chemistry did not award a BS degree for the first 40 years of its history. The Department created the AC or Analytical Chemist, a customized degree that focused on practical field work assaying. Our first chemistry graduate student, **Samuel P. Sadtler**, was a Gettysburg College alumnus in liberal arts (AB 1867), who enrolled at Lehigh with the intention of learning enough chemistry to pursue a doctorate in Europe. After spending 1868-69 at Lehigh he enrolled briefly at Harvard where he obtained an SB (1870) and then at Gottingen where he obtained his PhD (1871). Forty years later and newly elected as the first President of the American Institute of Chemical Engineers (AIChE), Sadtler queried the Lehigh administration about whether he had completed enough chemistry to merit an AC. The trustees said "yes" and Dr. Samuel Sadtler (AB, SB, PhD) was belatedly awarded his Lehigh AC in 1909. Sam was the founder of Sadtler Laboratories, the first supplier of reference spectra to the chemistry community, as well as a Professor at Penn and Philadelphia College of Pharmacy.

Incidentally, another rather special student who had also studied chemistry in 1869-1870 was **Harry Packer**, Asa's son. Unlike Sadtler, Harry had not accumulated enough credits to graduate before he dropped out, but the trustees nevertheless voted (upon his request) to grant him the only non-doctorate honorary degree in University history. Thus, our Founder's son, Harry Packer, honorary AC, and his classmate Samuel Sadtler were retroactively recorded as members of the class of 1870.

Harry Packer (Honorary AC 1870)
pictured on right was one of Asa's two sons. He actually served as a University trustee when he was awarded his degree.

Holders of the AC degree were ideally suited for analysis work in coal fields, limestone quarries, and iron-production furnaces. While Asa Packer's investments included many such facilities, young Harry Packer is not known to have worked in any of them.

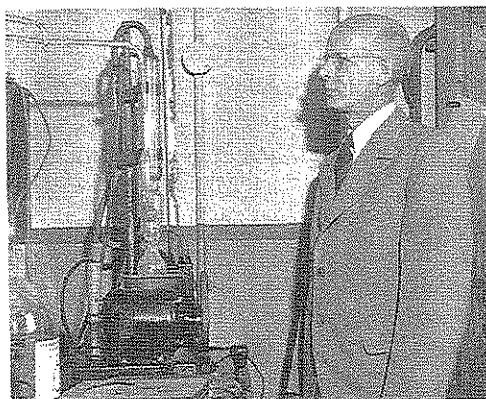


The Department is pleased to note that Samuel Sadtler, the founder of the AIChE, and Harry Packer were our graduates, albeit Harry was an honorary one. Harry, who served on the Board of the Asa Packer Estate created at Asa's death in 1879, did not long survive his famous father nor did he apparently ever work as a chemist. He died in 1884.

**A QUIZ FOR OUR ALUMNI--
IDENTIFY THIS FACULTY
MEMBER**

(1889-1965)

The alumnus with the most correct answers wins a department T-shirt. Please submit answers to Department Chair K. J. Schray by e-mail at kjs0@lehigh.edu or by letter to the department.



- This professor was born in the Midwest. What state? _____
- He often recollected how he'd taught high school science for four years at a Christian mission colony in what country? _____
- His bald head prompted his students to nickname him? " _____ "
- What area of chemistry did he teach at Lehigh? _____
- Who was he? _____

**PIONEERING IN CHEMICAL
EDUCATION BY SATELLITE**



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