

UCSF Office of Career & Professional Development

RESEARCH PACKAGE I:

Academic format for an institution with a research emphasis.

Contains: Cover Letter
CV
[Research Statement – sample not available]
Teaching Philosophy
Budget

These are real documents, with identifying information removed. Comment boxes designed to help you learn from these documents are provided by OCPD staff.



December 8, 2012

Chair, Faculty Search Committee
Department of Chemistry and Biochemistry
California Polytechnic Institute
200 Maxim Street
Town, CA 91111

Dear Committee Members,

I wish to apply for the faculty position in the Department of Chemistry and Biochemistry at California Polytechnic Institute advertised in the December 17th issue of Science. Currently, I am a postdoctoral fellow at the University of California at San Francisco in the Department of Pharmaceutical Chemistry in the laboratory of Dr. Jean-Pierre Raffarin.

My primary research goals are directed toward understanding the basis for molecular recognition at the atomic level using physics-based computational methods. As a postdoctoral fellow at UCSF and as a graduate student at Indiana University with Dr. Lionel Jospin, I have balanced method development for computational structure-based drug design with the application of these powerful tools to relevant antiviral and anticancer targets. My future research plans are aimed at *one sentence to discuss near term research goals*. My ultimate aim is to *one – two sentence(s) to discuss long term research goals*.

Beyond my research successes (including nine papers to date and others in preparation) I have been fortunate to obtain a wide-range of teaching experiences. As my curriculum vitae indicates, my teaching roles have included teaching assistant, instructor, guest lecturer, and mentor. I received the Indiana University *Julia Childs Teaching Award* as well as the Indiana University *Kofi Annan Memorial Prize* for best Ph.D. thesis. My experience with outstanding mentors has made me realize just how important one good teacher can be to a student. I will work hard to be the best teacher I can.

Enclosed are my curriculum vitae, publication record, teaching and research statements, and proposed research budget. Letters of recommendation are being sent under separate cover, and, if desired I would be happy to provide letters in support of my teaching. Please do not hesitate to contact me if further information is needed.

Sincerely,

Francois La Rouchefoucauld
Department of Pharmaceutical Chemistry
University of California at San Francisco
600 16th Street, Box 2240
San Francisco, CA 94143-2240
(415) 123-4567

It is unusual for a budget to be requested at this early stage of the job search process. Here we assume it was requested in the job announcement. Only include a budget if it is requested in the job announcement.

This is one way to format your letter.

A more common method is to list your name and address at the very top of the letter (above the date). The advantage of this is that your name will be at the top of the page (easy to find).

Note: if you'd like, you can print your cover letter onto UCSF letterhead. If so, use letterhead for the first page, and a blank sheet of paper for the second and later pages.

FRANCOIS LA ROUCHEFOUCAULD, Ph.D.

University of California at San Francisco
Department of Pharmaceutical Chemistry
600 16th Street, Box 2240
San Francisco, CA 94143-2240 USA

Lab Phone: (415) 123-4567
Lab Fax: (415) 765-4321
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EDUCATION AND RESEARCH

University of California at San Francisco, San Francisco, CA

- Postdoctoral Fellow with Jean-Pierre Raffarin, Sept. 2000 – Present

Project 1: Name of Project Here.
Project 2: Name of Project Here.
Project 3: Name of Project Here.

Indiana University, Bloomington, IN

- Graduate research with Lionel Jospin, July 1995 – Sept. 2000
- Ph.D., Biophysical Chemistry, May 2000 (Best Ph.D. in Chemistry Thesis Award)
- M. S., Biophysical Chemistry, March 1997

Thesis: "*Name of These Here*".
Project 1: Name of Project Here.
Project 2: Name of Project Here.
Project 3: Name of Project Here.

Massachusetts Institute of Technology, Boston, MA

- Undergraduate study with Alain Juppe, Feb. 1993 – May 1994
- B. S., Chemistry (*Cum Laude*), May 1994

Project 1: Name of Project Here.
Project 2: Name of Project Here.

REFERENCES

Dr. Jean-Pierre Raffarin
Department of Pharmaceutical Chemistry
University of California at San Francisco
600 16th Street, Box 2240
San Francisco, CA 94143-2240
(123) 456-7890
R@email.edu

Dr. Lionel Jospin
Department of Chemistry
Indiana University
P.O. Box 111
New Haven, IN 03442
(123) 456-7890
J@email.edu

Dr. Edouard Balladur
Department of Molecular Biology
The Research Institute
111 Address Road
City, CA 90000
(123) 456-7890

In other samples you may see that degrees are listed under an "Education" section, and research projects are listed under a separate section: "Research Experience."

In your Education section, you may highlight awards that are directly related to your degree (1 or 2 maximum).

The location of every section within your CV should be decided strategically.

Typically, the list of references would be placed as a separate sheet at the end of the CV. In this case, Francois may have listed references here on page 1 because Dr. Lionel Jospin is especially prestigious and influential.

It is important to have your name clearly marked on every page of your application, either in a header or footer. Page numbers are also very useful. This is key in case the pages of your document get mixed up with other applicants'.



PUBLICATIONS

1. Beregovoy, P; **La Rouchefoucauld, F.**; Cresson, E.; Rocard, M.; Chirac, J. Place Title of Publication Here. *Place Name of Journal Here*, **1996**, *35*, 131-135
2. **La Rouchefoucauld, F.**; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **1999**, *121*, 4827-4836
3. **La Rouchefoucauld, F.**; Fabius, L.; Mauroy P.; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2000**, *122*, 12898-12900
4. **La Rouchefoucauld, F.**; Barre, R.; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2001**, *44*, 145-154
5. Jospin, L.; Chirac, J.; Messmer, P.; **La Rouchefoucauld, F.**; Chaban-Delmas, J.; Couve de Murville, M.; Fabius, L. Place Title of Publication Here., In *Place Name of Book Here*, B. Lindstaedt and N. Saul, Eds., Alvis: New York, 2001; Chapter 15, 299-316
6. Messmer, P.; **La Rouchefoucauld, F.**; Barre, R.; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2001**, *11*, 2799-2802
7. Pompidou, G.; Debre, M.; Mauroy P.; **La Rouchefoucauld, F.**; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2001**, *105*, 10388-10397
8. **La Rouchefoucauld, F.**; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2002**, *45*, 2970-2987
9. Chirac, J.; Cresson, E.; Balladur, E.; **La Rouchefoucauld, F.**; Jospin, L. Place Title of Publication Here. *Place Name of Journal Here*, **2003**, *46*, 1940-1947
10. **La Rouchefoucauld, F.**; Pompidou, G.; Balladur, E. Place Title of Publication Here. *Place Name of Journal Here*, **2004**, *In Press*, 000-000
11. **La Rouchefoucauld, F.**; Mauroy P.; Balladur, E. Place Title of Publication Here. *Manuscript in Preparation*

HONORS

Awards

- Best Ph.D. Thesis in Chemistry at Indiana University, Kofi Annan Memorial Prize, June 2000
- B. S., Chemistry (*Cum Laude*), Massachusetts Institute of Technology June 1994
- The MIT Michael Bishop Medallion Award for Academic Excellence, June, 1994
- American Chemical Society Massachusetts Section Scholastic Achievement Award, March 1994

Fellowships

- Dept. of Defense Prostate Cancer Research Program Postdoctoral Traineeship Award Grant, (DAMD12-345-6-7890, Modification P00001), March 2001 – April 2002
- National Research Service Award (GM 12345-67), Sept 1994 – May 1995

This Publications section is formatted according to NIH Biosketch standards (chronological and numbered), and may therefore be the way that some PI's list them on their CV's.

However, in a *faculty job search CV* you'll want to list your publications in the manner that best sells you as a candidate. Typically, therefore, job search CV's will list pub's in *reverse chronological* order, placing your most recent (and likely most impressive) publication first.

It is not necessary to number your publications in a CV, unless you want to draw attention to the fact that you have several publications.

Consider listing articles "submitted" or "in preparation" under a separate sub-heading ("Manuscripts in preparation or submitted").



Teaching

- Indiana University Julia Childs Teaching Award, Oct. 1996
- Indiana University Prize Teaching Fellowship Nominee, March 1996

Scholarships

- MIT Chemical Club Scholarship, Oct. 1993 – May 1994
- MIT Summer Research Grant, April 1993
- Chemical Club of Massachusetts Scholarship, Oct. 1992 – May 1993
- Biomedical Trade Association Scholarship, Sept 1991

SOCIETIES AND HONORARIES

- Sigma Phi, The Scientific Research Society Associate Member
- Alpha Phi Alpha, The National Chemistry Honorary Society Lifetime Member
- Delta Sigma Thata Honor Society, Charter President MIT Chapter
- American Chemical Society Member

TEACHING

University of California at San Francisco, San Francisco, CA

- Guest lecture: Biophysics 298, Computation of Biological Molecules, B. Lindstaedt instructor, March 2003
- Guest lecture: BPS114, Intro to Pharmacy Informatics, B. Lindstaedt instructor, May 2003
- Guest lectures: Chem 262, Quantum Mechanics, N. Saul instructor, Spring 2003
- Laboratory Instructor: Chem 111, Physical Chemistry, E. Koenig director, Fall 2004

Indiana University, Bloomington, IN

- Teaching Assistant: Chem 131L, Freshman Physical Chemistry Lab, M. Conway instructor (Prize Teaching Fellowship Nominee, April 1997)
- Teaching Assistant: Chem 116L, General Chemistry Laboratory, J. Lopez instructor (Theodore Cooke Teaching Award, Sept 1997)
- Teaching Assistant: Chem 116L, General Chemistry Laboratory, J. Lopez instructor

Massachusetts Institute of Technology, Boston, MA

- Tutoring: Astronomy and Chemistry for the Academic Advancement Program (ACT – 101)

INVITED TALKS / POSTERS

- Morehouse College, Department of Chemistry, Feb 13, 2003 (Talk)
- Thomas National Laboratory, Center for Intensive Computing, Feb 10, 2003 (Talk)
- Harvard University, Department of Applied Mathematics & Statistics, Feb 9, 2003 (Talk)
- Princeton University, Department of Chemistry, Feb 4, 2003 (Talk)
- UCSF Symposium Honoring Jean-Pierre Raffarin, Oct 18, 2002 (Talk)

Good use of spacing makes this CV easy to read:
2 carriage-returns above and 1 carriage-return below each major heading.

Whenever possible, use **bold** to highlight the important information. For example, here you see that the names of the schools where Francois taught are most obvious to the eye. However, he may have benefited by instead using **bold** on the titles of his teaching positions, or the topics that he taught, which are probably more interesting to the search committee.

This is also an example where listing his experiences in *reverse chronological order* would have strategically placed his most recent and impressive teaching experience (Laboratory Instructor) at the top of the list.

Be consistent: for all teaching experiences, list the semester when you taught.

It is not necessary to list the official code for each class; but do be sure to always list the descriptive class title.

Often titles are listed for talks and posters. One advantage of listing only the venue, date, and location is that this section is easier to read at a glance. If you give a talk or poster on a topic other than what would be expected from your papers (or on a special topic that you'd like to highlight), then include all titles in this section.

Note that Francois explicitly indicated whether each was a talk or a poster.



- 226th American Chemical Society National Meeting, September 7 – 11, 2002 (Poster, Sci-Mix)
- The Seventeenth Meeting of Groups Studying the Structures of Aids-related Systems and Their Application to Targeted Drug Design, NIGMS/NIH, June 18 – 20, 2003 (Poster)
- UCSF Program Project Grant Group Meeting, Structure Biology and Targeted Drug Design for AIDS (12171971-06), March 28, 2003 (Talk)
- Gordon Research Conference in Computational Chemistry, June 30 – July 5, 2002 (Poster)
- The Sixteenth Meeting of Groups Studying the Structures of Aids-related Systems and Their Application to Targeted Drug Design, NIGMS/NIH, June 19 – 20, 2002 (Poster)
- UCSF/Molecular Design Institute/Biophysical Society Symposium Honoring Lionel Jospin, Feb 21 – 22, 2001 (Poster)
- UCSF/DOCK User Group Meeting, November 2 – 3, 2000 (Poster)
- UCSF/Molecular Design Institute Conference in Drug Design and Discovery, October 13 – 14, 2000 (Poster)
- Second Annual Indiana University/Bristol-Myers Squibb Symposium, September 4, 1999 (Talk)

Be careful of jargon or abbreviations, as not all faculty may be familiar with them.

Be consistent: Whether you choose to list items by *chronological order* or *reverse chronological order*, be sure that you choose one method of ordering and stick with it throughout your CV.

Other sections that can be included in a CV:

- Mentoring Experience (or "Advising Experience" or "Supervisory Experience")
- University and Community Service
- Patents
- Journals Refereed
- Languages Written and Spoken



RESEARCH STATEMENT

This section contained Francois's two page Research Statement. The first page was entitled "Past Research Accomplishments", the second was "Current Research Interests", and the last was "Research Proposal Overview".

TEACHING STATEMENT

TEACHING EXPERIENCE

Teaching Assistant. At Indiana University I was a teaching assistant for one semester of Freshman Physical Chemistry Laboratory (Chem 131L) and for two semesters of General Chemistry Laboratory (Chem 116L). I was one out of only twenty-two Teaching Fellows nominated by students across the whole university for the prestigious *Julia Childs Teaching Fellowship* for my teaching in Chem 131L. And, for Chem 116L, I received the Indiana University's Chemistry Department's *Julia Childs Teaching Award*.

Guest Lectures. At UCSF I have continued to hone my teaching skills by giving guest lectures in Computation of Biological Molecules (Biophysics 298), Introduction to Pharmacy Informatics (BPS114), and Quantum Mechanics (Chem262). For the Quantum Mechanics course I also developed several homework problems. These invited lectures afforded me the opportunity to teach classes ranging in size from 5 to 100 students using different media such as traditional lecture notes, overhead transparencies, and Power Point presentations.

Instructor. I am currently an instructor at UCSF for a laboratory section of Thermodynamics (Chem111). The course is designed for students enrolled in the PharmD (Doctor of Pharmacy) degree program at the UCSF School of Pharmacy. I have two teaching assistants under my supervision and the lab section contains 20 graduate level students. Prior to each lab, I give a 30 minute lecture describing the theory and mechanics of the day's experiment. For the remainder of each class, the TA's and myself provide assistance by guiding the students through the data analysis necessary to answer specific questions about the experiment.

Mentoring. As a postdoctoral fellow at UCSF in the Jospin group, I was given the opportunity to advise a visiting research scientist, Dr. Tony Blair, Director of Informatics at Amgen Pharmaceuticals Inc., and a senior level graduate student, Margaret Thatcher. As a graduate student at Indiana University in the Raffarin group, I was given the opportunity to supervise Winston Churchill, a visiting graduate student from Brazil, and help guide John Major, a graduate student in our lab. These mentoring duties have included giving informational lectures on topics of interest related to structure-based drug design, providing one-on-one tutorials for the setup, and analysis of computational experiments, directing software development, and overseeing manuscript layout and revision.

TEACHING PHILOSOPHY

My previous roles as a teaching assistant, instructor, guest lecturer, and mentor have been overwhelmingly positive. These teaching roles, coupled with my undergraduate, graduate, and postdoctoral experiences in which I was a student have formed my teaching philosophy. In short, my philosophy is to foster an environment that promotes: (1) enthusiasm, (2) life-long learning, (3) connection to the real world, (4) organized study, (5) student and teacher accountability, and (6) confidence building. I have great enthusiasm for science and I look forward to teaching both traditional courses in Chemistry and developing other courses as outlined below. Knowing through experience the profound impact that one good teacher can have toward a student's overall development, I will strive to incorporate my teaching beliefs, principles and interests, into day-to-day routines and my overall teaching plan. I am committed to becoming the best teacher I can be.

TEACHING INTEREST

As a faculty member I would be interested in applying my teaching principles to a wide range of undergraduate and graduate courses in the general areas of General Chemistry, Organic Chemistry, Physical Chemistry, and Biochemistry. I would like to pursue the development of more specialized courses in the general area of Structure-Based Drug Design, interweaving informatics, biology, physical chemistry, and medicine with case studies in pharmaceutical discovery and development. The fields of computational and structural biology, along with the current explosions in genomics, proteomics, and bioinformatics offer many opportunities for the development of interdisciplinary cutting-edge courses.

ESTIMATED BUDGET

Equipment

Computational Cluster:

• 50	Intel Xeon Client Node Dual Processor (1U rack space)	\$75,000 (\$1,500 each)
• 1	2.2 TB Raid Hard Drive System (Fiber Optic)	\$20,000
• 2	Equipment Rack (40U rack space)	\$2,000 (\$1,000 each)
• 1	Master Node (Xeon)	\$1,500
• 1	Backup System (Exabyte LTO Tape Library, 2.0 TB)	\$7,500
• 2	Cisco Network Switch (Model 3500)	\$3,000 (\$1,500 each)
•	Misc. Cables and Tools	\$2,000

Software:

• 1	DOCK (UCSF)	free
• 1	AMBER (Scripps)	\$500
• 1	BOSS (Yale)	free
• 1	MCPRO (Yale)	free
• 1	MOPAC (U Minn)	free
• 1	DELPHI (Columbia)	\$250
• 1	VMD (U Illinois)	free
• 2	MOE (CCG)	\$2200 (\$1,100 license)
• 1	Oscar Client/Master Queuing Software	free
•	Misc. Office and Scientific Software	\$5000

Workstation/printer/laptop:

• 5	HP XW600 Workstations with Keyboard and Monitor	\$12,500 (\$2,500 each)
• 5	Crystal Eyes Workstation 3D Stereo Glasses	\$5,000 (\$1,000 each)
• 1	HP Color Laser Printer (Model 4550N)	\$2,000
• 2	Dell Laptop	\$5,000 (\$2,500 each)

\$143,450 total
\$129,105 (after ca 10% academic discount)

Salary Support

- Summer Support for Two Years
- Travel Funds
- 2 Postdoctoral Fellow for Two Years
- 2 Graduate Student for Two Years
- 1 System Administrator (1/2 time to be shared with others in the department)

Space Requirement

- Approximately 1000 Square Feet
- Space for 3-5 persons plus 1 staff for first year and ca 10 persons total thereafter
- Housing for Computational Cluster (with air conditioning and proper power)

An estimated budget was included in this application package because the job announcement requested one. This is quite unusual.