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The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

UNIVERSITY OF COLORADO
Department of Biology
BOULDER, COLORADO 80302

Professor David J. Rogers
Taximetrics Laboratory
Department of Botany and Plant Pathology
COLORADO STATE UNIVERSITY
Fort Collins, Colorado

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

DEPARTMENT OF BIOLOGY

22 March 1967

Professor David J. Rogers
Taximetrics Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

Dear Dave:

I am pleased to have this opportunity to invite you to join the faculty of the Department of Biology of the University of Colorado as a full professor with tenure. Your responsibility will be in the teaching of basic and advanced courses in Plant Taxonomy, and in research in your field.

We are able to offer you a salary of $16,000.00 for the nine-month academic year. It is understood, however, that you may want to recover up to 70% of this salary through your research grants, and, then, you can expect corresponding reduction in your teaching duties. By aid of these grants, we understand you also want to employ three of your present cooperators at various levels, though this is a matter to be decided by you in cooperation with me, as the Chairman of this Department.

Normally, the University provides only a partial compensation for moving expenses of the household of new faculty. In your case, however, we are able to offer to pay the entire moving costs, within reasonable limits, for the households of you and Mr. Fleming. In addition, moving expenses of equipment and professional library will also be met by University funds. The University will also provide salaries for the month of June 1967 for Fleming and Estabrook in the amounts of $1,250.00 and $500.00 respectively.

Though most of the cost for your research is expected to come from outside funds, the University will furnish you with $5,000.00 for herbarium cases, paint, files, storing cabinets, microscopes, etc. We will also furnish your offices and laboratories, up to the cost of $5,000.00.

Let me end this letter by expressing not only my personal pleasure, but also that of all the faculty with the possibility of getting you and your excellent group of taximetrists to join our Department. We are convinced that this will increase tremendously our facilities for giving a modern and balanced course in Systematic Biology; at the same time, we hope that you will find the cooperation with your new colleagues to be stimulating and delightful.

Sincerely,

Askell Löve, Chairman

cc: Dean William E. Briggs

Ft. Collins
Mar. 23, 1947

copy

Dear Askell

We are pleased to accept your offer.made on March 22. I look forward with pleasure and anticipation to the development of a full and fruitful program in taxonomy in the Biology Department.

Route 2, Box 44 H
Ft. Collins, Colorado 80521
March 23, 1967

Dr. Askell Löve, Chairman
Department of Biology
University of Colorado
Boulder, Colorado 80302

Dear Askell:

We are pleased to accept your offer made on March 22, 1967.

We look forward with pleasure and anticipation to the development of a full and fruitful program in taxonomy in the Biology Department.

Sincerely,

David J. Rogers

cc: Dean William E. Briggs

Curriculum Vitae
David J. Rogers

Education
1. High School--Walton High, De Funiak Springs, Florida, 1937
2. BS, University of Florida, Gainesville, 1941
3. MA, PhD, Washington University, St. Louis, 1951

Teaching Experience

Course area	Years Experience	Institution
Elementary Botany		
Undergraduate ass't.	2	Univ. of Florida
Graduate ass't	2	Washington Univ.
Assistant & Assoc. Prof.	6	Allegheny College
Bacteriology (general)	6	" "
Pathogenic Bact.	6	" "
Field Botany	6	" "
General Biology	5	" "
General Taxonomy	6	" "
Taximetrics (Adv. Taxon.)	1	Colorado State University
Other experience		
US Army	4	
Curator of Economic Botany	6	New York Botanical Garden
Editor, ECONOMIC BOTANY	8	" " " "
Curator of Quantitative Tax.	2	" " " "
Research leadership:		
Studies of Manihot esculenta	13	Allegheny, New York, and CSU
Computer methods in biology	9	New York and CSU
Institutes:		
Summer inst. for HS teachers	3	Allegheny and New York
Summer inst. for HS students (director)	2	New York

Society Membership: AAAS, AIBS, Sigma Xi, Bot. Soc., Am. Soc. Pl. Tax., Soc. for Econ. Bot., Torrey Bot. Club, Int. Assoc. Pl. Tax., Assoc. Comptr. Mach., Soc. for Systematics (British).

Grants: Manihot esculenta--Am. Philos. Soc., Allegheny Faculty grant, NSF (2 awards).
Computer studies--ONR, NIH, NSF, IBM, USDA

Awards and Honors: Fellow, AAAS. The Addison Emery Verril Medal awarded by Yale University, Peabody Museum.

Henry Fleming--Biographical sketch

Born 11/25/13, Brooklyn, New York
Educated in New York, BS in Biology, New York Univ., 1937.

Major Research Interest:
Biometrics with particular reference to mathematical models and computerization
Problems of classification
Biology of lepidopterous larvae
Taxonomy and Ecology of lichens
Research and other professional experience.
Colorado State Univ., Assoc. Prof. of Botany, 1965--present
The New York Botanical Garden, Res. Assoc. in Quantitative Taxonomy 1961-1965.
New York Zoological Society, Entomologist, Dept. of Tropical Res., 1939-1960.

George Estabrook.
Born 11/1/42, Carlisle Barracks, Pa.
Educated in New York. A.B. in mathematics and biology, Dartmouth Honors Program, 1964.

Major Research Interest:
Mathematical applications to biology

Research and other professional experience.
Research Assoc. & Instructor, CSU, Sept. 1965--present
Research Associate, New York Botanical Garden. Sept 1964-1965.
Instructor of Math., Franklin Pierce College 1964.

Brill, Robert C.
Born 12/31/30, New York, New York.
Educated in New York, and Pennsylvania. B. A. 1952, Univ. of Pennsylvania. Presented enrolled as a graduate student in botany and CSU.
Major Research Interest
Applications of computers to biological problems
Research and other professional experience.
Colorado State Univ., Programmer, 1965--present.
Sperry-Rand Corp., Univac Division, Systems Programming, technical writer. 1964-65.
International Business Machines, Programming Research Dept., Applied Programming Dept., 1956-60.

Publications for these three have all been jointly with the project Director.

Mr. Brill has been a professional worker in the computer field for over ten years. (He joined IBM's Programming Research Department in December, 1956.) Most of his contributions to the field have been in the area of software design and implementation. (FORTRAN, COMTRAN, XPOP, and HERMES) are among the projects with which he has been connected.) Since August, 1965, he has been with the Taximetrics Laboratory at Colorado State University, where he is engaged in developing computer programs for biological classification and information retrieval.

Mr. Brill is also studying toward an M.S. degree in botany at C.S.U., in which pursuit he has so far maintained a 4.0 grade average. He holds a B.A. with honors in English and American Literature from the University of Pennsylvania.

April, 1967

OFFICE EQUIPMENT

Rogers' Office

3 bookcases or 1 big bookcase built in
1 file cabinet
1 desk
1 desk chair
1 big table
1 small table
1 blackboard
4 chairs
1 coat rack
This room will also be the library.

Fleming's Office

1 bookcase
1 file cabinet
1 desk
1 desk chair
4 chairs
2 big tables (subgraph type)
1 cabinet for IBM cards
1 cabinet for IBM printout
1 blackboard
1 coat rack

Estabrook's Office - Small front room

1 desk
1 desk chair
1 small table
2 chairs
1 blackboard
1 bookcase (small)
1 file cabinet
1 coat rack

Brill's Office (Programming Room)

4 desks (3 programmers and keypunch secretary)
4 chairs
1 table
1 blackboard
2 file cabinets
1 bookcase
1 coatrack

Herbarium Room - upstairs

12 cabinet (herbarium)
1 table (large)
Built-in tables, at least on one wall

Laboratory Room

2 herbarium cabinets

Secretary

1 desk
1 desk chair
1 small table
3 file cabinets
1 storage cabinet
1 bookcase
1 ~~chair~~ rack

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

DEPARTMENT OF BIOLOGY

9 June 1967

Dr. David J. Rogers
Taximetrics Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

Dear Dr. Rogers:

Shortly after your telephone call this morning, I checked out the status of the application of the Indian student on whom you inquired (Mr. S. G. Apan), with Dr. Charles H. Norrise.

As of this writing, we have received no response whatsoever to either of the graduate packets which we Air Mailed to him, the latest on 9 May 1967.

Sorry.

Cordially,

Margaret

Margaret Staples
Administrative Assistant

cc: Dr. Charles H. Norris (for Apan file).

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

DEPARTMENT OF BIOLOGY

18 May 1967

MAY 2 8 1967

Dr. David J. Rogers
Taximetrics Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

Dear Dr. Rogers:

Thank you for your usual "Thursday call". Shortly thereafter, in the morning mail, we received Estabrook's completed Staff Application for Employment, as well as the letter from Irwin in the Bronx.

During our conversation, I neglected to mention that both Fleming and Brill are required to complete and submit the Staff Application for Employment. Therefore, I am herewith enclosing same, requesting that you have them fill them out, and return to this office as quickly as possible (especially Fleming, as his first appointment is 1 June, and this is needed by our Office of Personnel prior to that date). We would appreciate receiving Brill's now, as well, for we are making out his 1 December 1967 appointment papers.

Am sure you have passed along information you obtained while speaking with Mrs. Owen yesterday morning re: signing of oath, W-4 form, bank designations, etc. which your staff members must individually and personally take care of at Personnel (second floor, Regent Hall).

As you add to your staff (secretaries, key-punch operators, etc.), each of these individuals will be required to follow the above-described proceedures. I am also herewith enclosing a copy of the Staff Application for Employment, and the Staff Appointment Form, in the hope that you might find it helpful in regard to our "paperwork mill" here! These two forms are to be obtained from my office, the Application being filled out by your new staff member, and the Appointment Form being done here in the office for the Chairman's approval and signature, and for forwarding to the proper offices on-campus.

Your kind and prompt assistance regarding the above matters will be greatly appreciated.

In advance -- many thanks!

Sincerely,

Margaret Staples

Margaret Staples
Administrative Assistant

cc: Dr. Askell Löve, Chairman
Dr. Charles H. Norris, Acting Chairman
Mrs. Elizabeth Owen, Bookkeeping
Rogers file, Biology

APPLICATION FOR EMPLOYMENT

UNIVERSITY OF COLORADO
PERSONNEL FORM 1-66

(Use Pencil or Typewriter)
NOTE: Applications will be kept active for one year

DATE .....

Name (Print) (Last) (First) (Middle) or Maiden

Local Address — Phone:

Other Address — Phone:

Date of Birth | Single | Married | Widow(er) | Divorced

Height | Weight | Number of Dependents | Ages of Children

Any Physical Limitations? If yes, explain on back | Citizen | Military Status

Any medical or psychiatric treatment during the past five years?
Have you been arrested, for other than traffic violations?

Name of Wife or Husband | His-Her Occupation | Where Employed

How long do you plan to work in Boulder? | Date Available

TYPE OF WORK DESIRED (See list)

1. | 2. | 3.

Permanent | Temporary Until | Part Time | Hours Restriction

EDUCATION

Circle highest year completed

Grade	1	2	3	4	5	6	7	8
High School	1	2	3	4				
Business School	1	2						
College or University	1	2	3	4				
Graduate School	1	2	3	4				

Year Graduated

Name of University

Degree(s)

Major

SPECIAL TRAINING

SKILLS (Check)

- Duplicating Machines
- Calculator
- Key Punch
- Tabulating Mach.
- Typewriter (Elect)
- Typewriter (Manual)
- Dictation Machine
- Shorthand — any system

TEST SCORES Do not write Below

Name	50
Number	50
Problems	25
Vocabulary	50
Filing	27
Spelling	50
Typing Speed	
Typing Accuracy	
Shorthand Speed	
Shorthand Accuracy	

PREVIOUS EMPLOYMENT (List most recent job first - include military service)

Name of Employer, Street, City, Name of Supervisor	Employed From / To	Job Duties	Monthly Pay	Reason for Leaving

(Additional employment may be listed on back)

Relatives Working for the University
Name _____ Relationship _____
Name _____ Relationship _____

IMPORTANT
I understand that giving false information is cause for discharge, and that a physical examination may be required.

Signature _____

SEE INSTRUCTIONS FOR PREPARATION ON BACK OF BLUE COPY

6-part Form
No Carbon Required
(Prepare and route according to instructions)

University of Colorado
Personnel Form 4-66

STAFF
APPOINTMENT - TERMINATION - CHANGE OF STATUS

Date _____

Mr.
Mrs.
Miss _____
(Last Name) (First Name) (Maiden or Middle Name) (Classification) (Pay Grade)

_____
(Department) (Account Number) (Position Number) (Social Security Number)

_____
(Campus Mailing Address) (Campus Phone)

SHALL BE:

☐ 1. **Employed** at a salary of $ _____ per month _____ percent of Full Time

_____
(Date of Monthly Appointment) (Local Address) (Telephone)

☐ 2. **Terminated** _____ Additional days pay due: Vacation _____ Overtime (Hrs. Worked) _____
(Last day of Service)

Would you rehire? _____ Reason for leaving _____

Have all University properties, keys, identification card and parking permit been turned in? _____

☐ 3. **Transferred** from _____ to _____
(Account Number & Department) (Position Number) (Account Number & Department)

Reason _____ Effective Date _____

(Change of Status Form to be submitted by department to which employee is transferring)

Accrued sick leave _____ Accrued vacation _____

☐ 4. **Changed in Classification or Title** to _____
(Pay Grade) (Position Number)

Reason _____ Effective Date _____

☐ 5. **Changed in Salary** from _____ to _____ per _____

Reason _____ Effective Date _____

☐ 6. **Granted Leave of Absence** With _____ Without _____ Pay from _____ Through _____
(First Day) (Last Day)

Reason _____

Special Conditions (Meal deductions, other current appointments, temporary employee, etc.)

RECOMMENDED

Department Head or Chairman _____ Director of Research Project _____

Dean or Administrative Officer _____ Research Accountant _____

Personnel Copy Approved for the President's Office _____

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

DEPARTMENT OF BIOLOGY

20 April 1967

Mr. Henry Fleming
Taximetrics Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

My dear Mr. Fleming:

As you will recall, on 18 April, I wrote you requesting certain items needed for completion of your appointment at this institution.

Dr. Löve now informs me that your three letters of recommendation will be needed prior to 1 July, 1967, date of your second appointment here. Will you be good enough to furnish us with these at your very earliest convenience?

As mentioned in my earlier letter, we are awaiting receipt of your completed Faculty Vita Sheet, and your described transcript.

I apologize for having to bother you again regarding the above, but am sure you understand the urgency of our request.

Many thanks for your kind assistance in all, Mr. Fleming.

Sincerely,

Margaret Staples

(Miss) Margaret Staples
Administrative Assistant

cc: Dr. Askell Löve, Chairman
Dr. David J. Rogers, CSU
Fleming file, Biology

PS TO DR. ROGERS: We would also very much appreciate receiving your three letters of recommendation at your earliest convenience. Thanks very much.

MS

PUBLICATIONS--George F. Estabrook

Estabrook, G. F. 1966. A mathematical model in graph theory for biological classification. J. Theoret. Biol. 12: 297-310.

Estabrook, G. F. and D. J. Rogers. 1966. A general method of taxonomic description for a computed similarity measure. BioScience, 16(11): 789-793.

Wirth, M., G. F. Estabrook, and D. J. Rogers. 1966. A graph theory model for systematic biology, with an example for the Oncidiinae (Orchidaceae). Systematic Zoology, 15(1): 59-69.

Rogers, D. J., H. S. Fleming, and G. F. Estabrook. 1967. Use of computers in studies of taxonomy and evolution. In Evolutionary Biology, Volume I. Th. Dobzhansky, M. K. Hecht, and Wm. C. Steere (Ed.). Appleton-Century-Crofts.

Estabrook, G. F. 1967. An information theory model for character analysis. Taxon (In press).

1. Grad students
2. Bob on Staff Council
3. Herb Cases
4. Furniture
5. Order

Key to rooms

Copies of budgets -

Themis -

UNIVERSITY OF COLORADO

BOULDER, COLORADO 80302

DEPARTMENT OF BIOLOGY

3 April 1967

Dr. David J. Rogers
Taximetrics Laboratory
Department of Botany and Plant Pathology
Colorado State University
Fort Collins, Colorado

My dear Dr. Rogers:

Herewith enclosed, please find five copies of the University of Colorado FACULTY VITA sheet, which we would appreciate your completing and returning to us at your earliest convenience.

I am also enclosing this same sheet, to be filled out similarly, by both Mr. Estabrook and Mr. Fleming, with an early reply again requested.

This information must accompany the formal appointment papers for each of you gentlemen.

Thank you very much for your most kind assistance in the above matter.

Sincerely,

Margaret Staples

(Miss) Margaret Staples
Administrative Assistant

cc: Dr. Askell Löve, Chairman
Rogers' file, Biology

enclosures: three sets of FACULTY VITA sheets

~~449~~ 443 9980

Route 2, Box 44 H
Ft. Collins, Colorado 80521
February 17, 1967

Dr. Askel Löve, Chairman
Department of Biology
University of Colorado
Boulder, Colorado 80301

473 Harvard Lane
Bern Clarke
Lafe Dart

Dear Dr. Löve:

Below are given some of my aspirations, and these are followed by some of the reservations I have in consideration of a move to Boulder.

I am very much encouraged by your enthusiasm for our work. This is, in itself, one of the most valuable contributions to continued improvement. For this reason, I feel that I should let you know what I think might develop if we come to Boulder.

I think my major effort is the renaissance of some of the older, "orthodox" or "classical" types of biology, in a new setting. The major goals of the descriptive and interpretive areas of biology have been to put together the various bits and pieces of information discovered about plants and animals in order to understand the whole organism. This is certainly the goal of evolutionary studies, and its two major assisting disciplines are ecology and taxonomy. But the fantastic quantity of information about organisms caused these disciplines to lose their primary objective by overloading our older storing and retrieving methods. There are, however, some very pertinent thought processes in these fields which can be used as models for mathematical algorithms and computer programs. With these, we can again serve the role of interpreter of the meanings for the whole organism of the data derived by the geneticists, the biochemists, the molecular biologists, etc. I have already had some success in this effort, and see no reason to believe that we cannot continue to improve our chances to achieve the above-mentioned goals.

I believe strongly in teaching. The community of scholars is not complete without the stimulus of young minds about us. I would like some responsibility at the introductory level. But not just teaching in the ordinary sense: we need to investigate the methods of teaching in biology very much. It has been said that much introductory botany (or zoology) is just the repetition of stupid, dry, unrelated facts. Now factual information is significant, but we can relegate the learning of it to teaching machines, where the student can practise at his own discretion. This can be done, and has been done in several locations, the most outstanding of which is Purdue, under Postlethwait. But only the introductory courses, where there is tremendous pressure in numbers of students, have been treated. We need to look further.

Students must know many things about the kinds and numbers of organisms, and it is at this point that most "modern" biologists focus their criticism of the "old", the "dead" biology. But the moderns merely substitute another corpus of information that must be learned. To accomodate the needs, we need to investigate methods by which the corpus

can be easily (or more easily, for it cannot be done without some work on the student's part) incorporated into the student's brain. I have some ideas about machine methods for assisting in biological instruction, and will soon put them to work. These will be computer-assisted, in procedures which may take some time to develop. We can get funds for this work from a number of sources, including the industrial organizations now entering this field. The important thing to remember here, for you, from me, is that I think the methodology in taxonomic work can be used as a model for the development of the teaching procedures I know will pay off.

In another vein, I am interested in breaking down some of the present artificially-erected barriers separating some of the disciplines. For example, we now separate psychology from biology, and sociology, anthropology, and political science from either of the first two. Why? Much of the thought processes employed in systematic biology--please note thought processes are differentiated from the factual information--can be used gainfully in these other disciplines. We know, for we have used our present programs and procedures for several of these other disciplines. We also use our methodologies in medical diagnosis. I believe that we can be a service unit to help workers in these fields with their own problems. We also know that biology will increasingly tend to serve as a stimulus to mathematicians. On your own campus is a mathematician--Ulam--who concurs in this. We need, therefore, to open the door to mathematicians who want to look into the world of biology.

More closely allied with our own starting point, plant taxonomy, we know that many more investigations into the theoretical aspects need be made. We will continue to make these investigations, in the manner already familiar to you. We will work as a team, for I do not have sufficient grey matter to hold all the needed disciplines which we incorporate. But one aspect may not have appeared to you quite so clearly. We frequently work with other biologists who have specific problems in our area. At the moment, I am working with botanists and zoologists all the way from Davis, California to Oxford, England, with many points in between. These are first-rate people who really should not have to devote much time to developing computer methods, but whose problems are solved only when computer processing on their data is used.

We have found it very important to help other biologists to understand and use the methods that we develop. Our work has been most successful when we instruct others in the proper application of the methods. To accomplish this, we have worked informally in the past, but will soon institute a summer program for professionals. This will, of course, be in addition to our regular program of instruction for graduate students. We use "team teaching" techniques for this instruction, integrating lectures and laboratory work in systematics with mathematics and computer programming. This way, the students get a flow straight through from the biological considerations to the practical aspects of programming.

We insist on the incorporation of a mathematician and a programmer right into the course at all levels, for only through the rigor of mathematical logic can we expect our biologists to improve on their otherwise

intuitive, frequently illogical, procedures. The mathematics employed is largely in the areas referred to as "modern", but the exact meaning of this term isn't quite clear to me. We do not confine our attention, as most biologists have done, to statistics. Structural mathematics is one term useful to us. Actually, the logics are the most important for the biological thinking needed.

I have two large grant requests "in the mill" at the moment. The combined budgets for these two are something over half a million dollars (including the indirect costs). One of these is addressed to NIH, for a study of Cinchona. The other grant is to NSF, for a computerized information retrieval system. The NIH grant is up for consideration of the March panel, and the NSF grant was submitted toward the end of January. Hopefully, both will be started by next July 1. Our grants at the moment are from NIH, from IBM, and from the Forest Service of the USDA.

My own interest in research will continue to be the study of the tropical root crop, Manihot esculenta. The main point of my study is the evolution of cultivated plants, a subject becoming more and more interesting to biologists. But I want to keep abreast of the practical aspects of this work, for we are woefully ignorant of this crop, one of the twelve food plants that stand between man and starvation. It is critical that biologists attack some of the practical problems facing mankind, and one of the most pressing today is the production of sufficient food to feed the world's increasingly explosive population.

Now for some of the reservations. First, we have really just settled in Ft. Collins after our move from New York. To pull up again just causes more delay. Second, we really have no reasons to remove ourselves from this campus--our work is accepted, and the administration is appreciative. We have improved our salary conditions here rather remarkably since coming, and see no reasons why we will not cintinue in that direction. There are many more biologists on the campus here than at Boulder, which is, in itself, a very important feature. I believe our library holdings in biology to be as good as, if not better than those at Boulder. We have a very good budget for improvement in this direction, and we are pleased with the way the library has cooperated with us. Our physical arrangements are much better here than what you have there, and there is already a plan for a new building for botany. If I move to Boulder, a tremendous amount of time will be taken up just in putting the laboratory back together.

We have two years behind us (or soon will) at CSU. This means that I will be up for tenure here next year, and that in four more, I will be due for my sabbatical. Frankly, I do not look forward to giving that up.

Personally, we find the environs of Ft. Collins very satisfactory. I have just purchased a very nice home at a price that I am confident could not be matched in Boulder. Our children are quite well pleased with the schools they attend, and I certainly do not wish to upset their present arrangements. Connie loves the place we live in, and so do I. As you are aware, a move is very costly, and I am unwilling, when our educational expenses are going up, to take away any more from our savings in so unproductive a thing as paying the moving company. It takes from two to three thousand more just to reestablish yourself in the new location.

Now, for some of the problems there. It is well known that biology at Boulder has been in the doldrums for a long time, and that this is true for some rather poor reasons. It is known that some of your higher administrative officials have not made very good decisions, and this has had a very sad effect on the biology staff. I think it is probably true that the medical school has had too much say about things which they are really not qualified to speak on, and this is not very much of a recommendation for officials who should be able to balance the special interests of an applied field. It is patently ridiculous to say that one band-wagon or another is the way that biology should go. To set out to establish any one subdiscipline at the expense of another in biology is guaranteed to cause rankor amongst those not favored. It is probably true that you have some dead wood in the department, but it has been my experience that any school has some of this problem--as long as you're hiring human beings instead of computers. The only problem there is that the administration must not bow to their carping.

From these considerations you can see that I have some doubts. I would like some sort of reassurance that we would not be caught up in politics when we should be working very hard at our science. You can see that I am seriously considering the possibility of a move if the arrangments can be made.

I will send a list of our requirements under separate cover. I trust you will understand that the poor typing is because I did it myself. This is an indication of our need for a secretary.

Sincerely,

David J. Rogers

Also decribed 2 Thesis projects
one w/ me as coordinator $500,000.

Rt. 2, Box 44 H
Ft. Collins, Colo. 80521
February 18, 1967

Dr. Askell Löve
Department of Biology
University of Colorado
Boulder, Colo. 80301

Dear Askell:

Here are the requirements for us to come to Boulder.

1. Salaries. My own: $18,000.00 for 12 months, or $16,000.00 for 9 plus fringe benefits, plus regular annual increments.

Fleming: $15,000.00 for 12 months, $12,000.00 for 9, plus fringe benefits and regular annual increments.

Estabrook and Brill: $6,000.00 per year plus fringe benefits and regular annual increments.

We will continue to seek salaries from the grant income, at least for those portions where research is involved, but want to have a guarantee that we will eventually be free from need to seek our own salary funds. We hope that the University will establish this operation as a regular part of its academic activities within an agreed-upon time, say from three to five years.

2. Ranks. My own: full professorship.
Fleming: Associate professorship.
Estabrook and Brill: probably instructors, but cannot determine just how to handle their situation for half-time.

Estabrook's and Brill's situation is as follows: They are given the titles of the jobs they perform, that is, mathematician and programmer. Each is continuing advanced work. Estabrook is a candidate for the master's degree there at Boulder in mathematics. Brill is now a graduate student in botany here at CSU. He would like to transfer to Boulder, and continue towards a PhD there. Both would like to have some arrangement whereby they did not have to pay tuition.

3. Additional staff. We have incorporated in our grant requests funds for the following positions:
chemotaxonomist--assistant professorial rank
mathematician-- " " "
biological information retrieval expert--rank yet to be determined.
programmer, or more appropriately, a systems analyst; rank to be determined.
full time secretary, also trained on the peripheral equipment at the computer center.

We hope that, where appropriate, these positions may have joint appointments on the appropriate faculty. Also, I would hope that the time they actually work on grant funds may be considered towards a tenure-bearing position.

Under any circumstances, grant-financed or not, we need a full time secretary.

4. Equipment. The following items may, or may not be transferrable, since they were purchased by grants.

Two B & L dissecting, stereoscopic scopes, with lights
one B & L compound scope with lights
one Olivetti desk calculator
one manual typewriter with mathematical keyboard
one Termatrex information retrieval device, with peripheral equipment (light boxes and card holders)
several smaller, items such as hot plates, cutting boards, etc.

We will need twelve single-doored herbarium cabinets to house my own collection of specimens and records. Also, three steel storage cabinets will be required.

Two more typewriters, one electric, the other standard manual.

There are, of course, the usual requirments for furniture

One of our new projects (on Cinchona) will require some sort of laboratory. I am not certain what will be needed in the quarters you have available for us, but we want some sort of assurance that the place can be modified, if required, to accomodate the necessary plumbing, heating and wiring for a small biochemical laboratory.

5. Personal costs. We want to be paid in full for moving from Ft. Collins to Boulder, but cannot indicate these costs in advance. This includes all personnel, of course. Three of us are family men, but Estabrook is unencumbered.

It is unlikely that I can recover my costs if I sell my house. The market is almost identical to the time when we purchased the place, so we cannot expect any improvement in sale price. Therefore, I should like some help with maintenance of my equity. This is a common practice in business, and I hope, with the University. Fleming is the only other one with a house. He would need the same assistance.

I cannot make any requirements on the use of the computer without having done some sort of investigation. I suppose that we will get essentially the same rates offered any other staff member, and that is satisfactory for us. I do not think our time use of the computer is at all extensive. We have yet to run more than about 40 minutes on any one project (using the present IBM 7044) and it isn't too likely that we'll exceed this in the next couple of years.

This just about covers all our requirements. We will be glad to discuss them with you.

Sincerely,

David J. Rogers