

ENTER NOW!

HAIKU CONTEST

**ON
KSDO 1130am**

OVER 175 PRIZES

RULES

1. Enter as many times as you like. Only one HAIKU to a card or letter.
2. Mail Entry to KSDO, 1551 Camino Del Rio, San Diego 10, California.
3. Entries judged on proper HAIKU structure, neatness, originality and aptness of thought.
4. All entries become the property of KSDO and Japan Air Lines and none can be returned.
5. Employees of KSDO, Japan Air Lines, their Agencies and families are not eligible.
6. Entries must be postmarked by 12 midnight Sunday to qualify for preceding weeks contest. Contest closes 12 midnight, May 31, 1964.
7. In case of ties, the entry bearing the earliest postmark will be declared the winner. Duplicate prizes will be awarded in the event of a tie.
8. It is not necessary to use official entry blank.

**ENTRY BLANK
MY HAIKU ENTRY IS:**

NAME: _____

ADDRESS: _____

PHONE NUMBER _____

(over)

WHAT IS HAIKU ?

HAIKU is a form of Japanese Poetry. HAIKU means "playful phrases." They are short poems in about 17 syllables; they record simply a vivid impression of some concrete event that has impressed itself on the poet..They are not self conscious poems..they do not philosophize..they do not speak directly of human emotions; they speak of nature. They do not rhyme. To write HAIKU in English, one should restrict ones self to about 17 syllables with about 5 syllables in the first line, about 7 syllables in the second line, and about 5 syllables in the third line, but not rigidly so. Fit the poem in 3 lines.

EXAMPLES OF HAIKU:

"The sea darkens
The voices of the wild duck
Are faintly white."

"The old pond
A frog jumps in
Plop!"

PRIZES

4 Weekly Contests -	May 4 - 10, 1964
12 winners	May 11 - 17, 1964
each week.	May 18 - 24, 1964
	May 25 - 31, 1964

PLUS

10 GRAND PRIZE WINNERS

PLUS

25 Consolation prize winners

A TOTAL OF 83 WINNERS

OVER 175 PRIZES

TELEPHONE MESSAGE

Date 5/26 1964

for ~~M~~ Dr. SZILARD Room "E"

You were called at 9:25 o'clock A.M. P.M.

by Mrs BROWN

Message: Please call before 11:00 P.M.

Los Angeles 213 - SY-0 - 6130

Operator Den

memo

from the desk of *John L. Blair* president

To Regular Customers Only

Subject **Warning about higher prices!**

Although we've resisted ever-increasing costs and held our prices down, the time has come when I must tell you --

THIS IS THE LAST TIME I CAN GUARANTEE THE LOW PRICES SHOWN ON THE ENCLOSED 16 BARGAIN SLIPS!

For your own protection, won't you look through these Slips now and stock up on the Bargains you and your family need.

I'll gladly send everything you select for a week's Free Trial so that you can see and wear them before you decide to buy.. If you're not satisfied 100%, simply return them and owe nothing. That's fair enough isn't it? Satisfaction or no pay!

But, please act promptly! Stocks are not large and I cannot guarantee these very low prices beyond this offer. Make your selection, fill out the handy Bargain Slips, and mail them to me today, won't you?

Sincerely,



P.S. If you send payment now, we pay all postage and handling costs. Your money instantly refunded if you aren't more than pleased.

NEW PROCESS COMPANY . WARREN, PA.



269 VESPA GUARANTEED FOR LIFE

DYNAMIC BALANCE

Sometimes people ask why a Vespa with its offset engine doesn't fall over. The answer is that it does — if you push it off its kickstand, as will every scooter. But start it up and you feel Vespa's unique dynamic balance at work. This means better handling at even the slowest speeds.

Dynamic balance, offset engine, direct drive.
We engineered it that way.

THE TESTED MOTORSCOOTER

Vespas are tested for toughness. The steel is tested before it becomes a one piece unitized body. The crankshaft is tested 11 times. Magnetos are tested. Steering columns are tested. Even the grease in the speedometer is tested.

A long, and strong life is built into every Vespa, and, as our guarantee proves, we're proud to stand behind it. Over 6,500,000 owners tell us — there's quality built into every part.
We engineered it that way.

If you're thinking two wheels, think Vespa — the name that means motorscooter to millions. Six great models priced from \$269 plus modest destination and setup costs. Try one today . . . you'll be delighted.

For the name of your local dealer anywhere in the United States, consult your Yellow pages or write to:

VESCONY, INC.

Exclusively Importers of Genuine Vespa Products
949 Commonwealth Avenue
Boston, Massachusetts

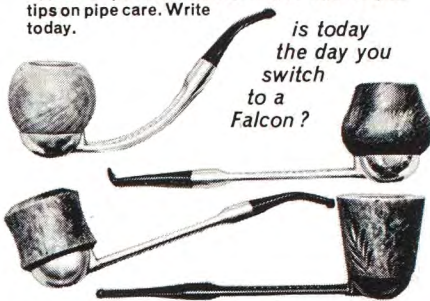
SWITCH

to the pipe that makes smoking a pleasure

FALCON

Enjoy smoking without worry. Falcon's patented tar-trap condenses all moisture and tars before the smoke reaches the air-cooled stem. You get a cool, dry smoke...all the pleasure of fine briar and tobacco. Your dealer has a wide choice of Falcons at \$3.95 and \$4.95. Extra interchangeable bowls from \$1.75.

FREE—Pipe Smokers Handbook with helpful tips on pipe care. Write today.



*is today
the day you
switch
to a
Falcon?*

Falcon International, Inc., Chicago, Ill. 60641

SHIPMATES WANTED

To join beautiful sailing yacht for 10 days of barefoot beachcombing thru remote tropic islands. Your share about \$185.00.

WRITE: CAP'N MIKE

P.O. BOX 1041-P, MIAMI BEACH, FLA., 33139

Mr. Q. M. Stripe-Tease

A Via Veneto fashion right down to its last Roman inspired ombré stripe. Ripley tailors this sunny idea in shirt-jacs in a soft-to-the-touch acrylic knit that simply begs for attention. **4.98**



*Signature of the Quality Man

Ripley (Dept. C)
19 Chapel Street
Brooklyn 1, N. Y.

Please send Stripe-Tease, 4.98, 2 for 9.75
 Sizes: Small Medium Large Colors:
 Black/Gold Black/Gray White/ Gray

NAME _____

ADDRESS _____

CITY _____ STATE _____

add 35¢ for postage and handling

with
drie
ach.
bott
until
breez
tween
and i
home.
into t
at Da
tance
well-w
circled
before
to the
feet. H
and we
with w
to dry a
for his b
to his co
Kissy cl
into her b
inside it.
was 65
wonderful
sible for I
first catch
himself, B
the island
of the boa
horizon, a
into the
Scottish g
His ham
if he had
truncheon,
ginning to
comforted
that he w
have had
ing for the
would com
himself fre
into Kissy
and the lo
turned the
speck beca
island and
The next
and the ha
largely the
diving.
During c
asked Kiss
and he was
darkened.
usually tal
a forbidden
hell had su
a mile av
home. And
what I hav
are very se
Devil him
there." Sh
but gestu
kannushi
and our

The
Parapsychology ~~Center~~
Foundation.

Enclosed files
333 40 33 Denver

453-4100 (714)

Dr. Marshall
heretofore. Great respect,
National City

4634) Parapsychology Found
The
East 6 A or

Denver 20

Harold Keen

KFMB-TV

232-2114

Home - 583-5959

Mr. Chamberlain

Santa Barb.

Op 73

968-1511



Robert C. Winsett
6455 Electric Ave.
La Jolla, Calif.



Dr. Szilard
Salk Institute
La Jolla, Calif.

Roger Denville

John Thomas

George Backus

Keth Bonckman

Harry ~~Suhl~~ (~~Physicist~~)

Matthews

Bernard

Clay Perry

Harold Way

Jim Arnold

Joe Mayer

Walter Munn

John Singer

Merle York

10 }
12 30 }

230 }
500 }

May 22, 1964

SPEAKER:

Dr. Melvin Simon
Department of Biochemistry
Princeton University

TOPIC:

"Photodynamic Reactions of DNA"

TIME:

4:00 p.m., Friday, May 22, 1964

PLACE:

307 Vaughan Hall, UCSD

4 o'clock

Kennedy

REMARKS:

NOVEMBER:

TIME:

PLACE:

NOVEMBER 1964

Department of Biochemistry
Bristol University

Department of Biology
Bristol University

NOVEMBER 1964

NOVEMBER 1964

NOVEMBER 1964

LUNCHEON at LA VALENCIA 12.30

Dr. Seymour Harris -

honoring Professor John Chipman
from U. of Minnesota

JOURNAL CLUB - ~~next~~ May 25

7.45 p.m. , Library, Scripps.

Dr. Salk will speak

REESE-STALY CLINIC

Mr. Homer Peabody

232-2141

Dr. Favour

Kulovich

Fl 5-1407

1920 Newport

DENVER LAWYERS

WOLFE, DK. Equitable Bldg
Keystone 4-3155 (off.)
PEARL 3-4335 (home)

LITTELL, Duane O. Majestic Bldg
ACORN 2-8603 (off.)
SUNSET 9-1184 #2 Hinwood
Drive, Cherry Hills Village, Englewood
WORMWOOD, K.M. Sycamore Bldg
MAIN 3-5248 (off.)
EARL 2-3315 (home)

KRIPKE, K.N. 255 Clayton
DU 8-4123 (off.)
SKYLINE 6-4778 (home)
WHITE, Byron R. First North
ALPINE 5-5475 (off) Bank Bldg
FL 5-0117 (home)

ROBINSON, K. E & C Bldg
TATER 5-6246 (off.)
SKYLINE 6-3833 (home)

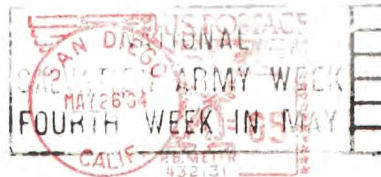
MEADOFF, Marilyn T. Equitable Bldg
AL 5-6760 (off.)
EARL 2-7610 (home)

Not explored:

- Dickerson, Parisey & Dwyer
Darwin D. Coit (Byr White)
Ray O. Goldin (Bredie)
Richard D. Hall (Yeppe, Bob & ^{Sunday})
(Louis E. Galt)
DeLean (Partner of Kiphe)
Shapoth & Tall (Quiff Weston)
? Van Cise (Big trial L)
Fred Winner

GELT Fr 7-2159

6610 El Cajon Boulevard
San Diego, California 92115



Dr. and Mrs. Leo Szilard
2390 Torrey Pines Road
La Jolla, California

10-11 }
3-5 }

Henry
Doremus

Mouse

Canterbury Hotel
Graystone 4-6464

Jan 2 - 1944

Thursday → L.A.
3 days

La Jolla Cove Apt. Hubel

ESP / Maurice Kesner }
Res. tel 281-0207 }
San Diego }

Arheimis

2711¹¹ Glenwick Pl 530
454-1156

changed to 453-2255

Take Jovey Pines Rd but before going down into canyon, turn RIGHT on La Jolla Highlands

then take SECOND to LEFT,
(Glenwick Lane)

Follow Glenwick Lane to end then turn RIGHT.

18th May 1960

Dear Trude,

It was very good of you to write me so fully, when you must have your hands full. I did not expect Leo to write me — I only wanted him to know that he was in my thoughts & was willing his recovery. It should have occurred to me that you would consider to be in New York instead of Colorado, it's good to know that you can live so near to Leo. You reassured me by telling me that the radiotherapy appears to have been successful — I clearly hope that is permanent. If his stamina has been built up by hospital care, he should be able to take the major operation you mention. You know, paradoxically this illness may restore him to better health than ever, not only by enforcing rest but by bringing him the respiration & the form he ought to have had earlier.

Yes, I see the Bulletin of Atomic Scientists & Leo often has articles there, which I appreciate though I don't always agree with (we always had our differences). What is important is sincerity. I'm looking forward to the May issue (of course the copies reach so late, not being sent first class mail, naturally) so as to read Leo's letter to the New York Times. But what really pleases me is that you tell me that two major scientific papers have been published. It's good to know that the holdhovers are able to visit you. They are such nice people & I'm very fond of Trude — but I never know whether they are in California or N.Y.

No, I have not come across Dr. or Mrs. Lerman — I haven't been to Cambridge since about 1947! If I can be of any help to them, I shall be only too pleased. I am just stuck in my office — working all the time. No holiday this year (I had one last year, the first since 1937!) — indeed, I have to move from my lodging, a disagreeable & expensive business, but unavoidable. Accommodation is a horrible racket, or live in Hampstead, where exploration of the tenement is rife.

BY AIR MAIL
PAR AVION
AIR LETTER
AÉROGRAMME

LONDON
9 45 PM
18 MAY
1960
C



Dr. Gertrude Weiss-Szilard
c/o Dr. Fox
The Rockefeller Institute
661.5 Street & York Avenue
New York 21, N.Y.,
U.S.A.

Second fold here

Sender's name and address: E. SIMPSON
Society for Visiting Scientists Ltd.,
5, Old Burlington Street,
London, W.1.

AN AIR LETTER SHOULD NOT CONTAIN ANY
ENCLOSURE; IF IT DOES IT WILL BE SURCHARGED
OR SENT BY ORDINARY MAIL.

To open cut here

First fold here

When too was on her, I had to travel on last week. I
because I had developed what seemed unusually v. (I think) I
was very disappointed, but I was a no slip to talk to anyone. I then
certainly more than a cold - it seems to have been a my (I think) and
for I, for that reason he of the names of more & small for
many weeks, it too it was very disagreeable. I'm very glad
I didn't see it too it was very disagreeable.

You may meet a lot of my old friends. Do you come across
the two Kelliey girls at all by any line in Wilm. Plains. Hilda -
the natural one - Laura, 9 time, and ~~at~~ the other University,
her husband, Miss Rosemont? or at the other University, I'll never know,
Pope, a Russian man. I don't have no idea. He had daughter,
Hanna, is a doctor in London. Do you know General Nelson. He
was in Venice in the 30s. I am I was in that with Hydra
Lider (for Angeles) - she is in it all well. He has had that's it
with a Chicago for France you may know long & believe he
always in the roads in the summer?
him. Do you know to tell him how much I'm thinking of
with very best wishes, love
E.S.

4th August 1960

Dear Trude,

I keep on wondering how Leo is getting on. Not long ago Eugene Rabinowitch stayed here but he had to recent news. I made a point of seeing the two television interviews shown here recently (I have no television set myself) - the Ed Morrow ones. Isabel Mursden (whom Leo remembers) wrote me yesterday that she had seen them too, it was very impressed. I wonder if Leo remembered it. I think that Ed Morrow was Adam's opposite number in New York 1933-35 or so? He has gone a long way since then! And so has Walter Adams! The latter must be having a very sticky time just now; it can't be easy to be the Principal of the first mixed University in Rhodesia.

Recently I had a visit from a young Australian couple sent to me by Prof. Broda - Dr. & Mrs. Schönfeld. Dr. S. works with Broda. They told me they were staying in London with a lady who had met me through you - unfortunately I don't know her name. I had no recollection of it anyway - it must have been a very long time ago. The lady in question lived in the same house as you in Vienna.

In addition to being horribly overworked, I now have the disagreeable job of moving. I'll still be busy at Hampstead, but it's a nuisance to have to move after 14 years. The house where I live - I used to love happily - changed owners, with the result that it became packed with undesirable characters (they can pay a higher rent). Shortly after the move I go to the British Association meeting (my annual business holiday), in Cardiff it's just the only break I get, it's hard work but enjoyable.

But it's Leo who was not meant to be about me but about Leo. I am anxious for news. Modern medicine has achieved a number of miracles, & I feel I can hope

BY AIR MAIL
PAR AVION
AIR LETTER
AÉROGRAMME



Dr. Guillaume Seward-Weiss
42 Da Fox
THE ROCKEFELLER INSTITUTE
66th STREET & YORK AVENUE
NEW YORK 21, N.Y.
U.S.A.

← Second fold here →

Sender's name and address: SIMPSON

Society for Visiting Scientists Ltd.
5, Old Burlington Street,
London, W.1.

AN AIR LETTER SHOULD NOT CONTAIN ANY
ENCLOSURE; IF IT DOES IT WILL BE SURCHARGED
OR SENT BY ORDINARY MAIL.

← To open cut here ←

↑ First fold here ↓

for further ones. I wonder if Karl Böhm's has
reorganized a unit in the U.S.? I saw him a month or so
briefly when they were over last year - not long enough
to get any real news. They went to America - the Hungers,
I presume - for Hungarian hearts without doing their
official work.

Do let me know if there is anything I can do
for you over here. Hope you yourself are bearing up!

By all means a blessing it is you can have a number
of a period the Coldwaters are after to visit you. Their
sons had lunch with me here not long ago; the boys then
met their parents in Rome.

Your friends the Cambridge boys are just going to
with me - no doubt they are very busy. I'll send you
next item perhaps he of service to them; I'll return
him in my thoughts.

1951

West Sutton, Mass., Friday, April 8, 1960.

Mrs. Leo Szilard, N. Y. Memorial Hospital, New York City, N. Y.,

Dear Mrs. Szilard:-

I have read recently of your husband, Dr. Leo Szilard, found it necessary to be taken to the above Hospital, mentioned there, for the reason of a cancerous condition in his body.

The article said further that he refused surgery last December, as it might interrupt his scientific work. This was, he said "because I was told I may not have much longer to live." That is a gruesome thought, to come to anyone; especially to an able person like him.

I am writing this letter to you to say if you are not aware of the fact that there are successful methods of treating a cancerous patient, other than by X-ray, radium and surgery, that there are clinics in our Country that have helped and even cured cancer patients---it may be a boon to your minds and hearts. One clinic is in Pittsburgh, Penn. It is called the Drosnes-Lazenby Clinic, for the names of the two founders. It has had much success with cancer patients. Mrs. Lazenby was a nurse and had use of a laboratory. Her Mother died from cancer. She decided to make a "find", a cure for cancer. Mr. Drosnes was a business man and furnished much of the necessary funds for a start. He became interested as his uncle had died of the same disease. Another clinic, established by Dr. Harry Hoxsey, in Dallas, Texas. Two years ago perhaps, Texas passed a law that no Naturopath could manage a clinic there. So he had to yield his work in Texas. It was given over to Dr. Harry Taylor (an Allopath or something similar). But it is reported that he employs the same staff of nurses and uses the same treatment. Dr. Hoxsey called his treatment Krebsiozen. There are other doctors who have had success in treating cancer patients but I do not know that they

have clinics. One is Dr. William F. Koch who helped his wife and others by his method of treatment. Dr. Ivy Conrad is another in that field. I sent you a copy of Herald of Health Magazine this morning (for which I have subscribed several years.) Maybe you (and your husband if he is still able) will be glad to read the main article within. I made most of the markings for emphasis when I read it first, the brighter ones, I made a little later. Judging Dr. Wilson, who is mentioned there, I think what is said of him, is correct, by my correspondence with him.

Various leaders, who were eminent in the past, have been referred to as "indispensable men" and with the record that your husband would leave behind him, he surely would be in that class. Your husband would wish to live on, reading and writing in the scientific lines of his choice. With that thought in view, I am sending you this letter to mention the existence of other methods of treatment for his trouble, when one does not give the satisfaction desired. Some doctor must have told him that he "did not have much longer to live", and that is just what the methods set out to accomplish----make better or completely well what have been considered by the "regular doctors" as "terminal cases."

I was 83 years of age last November, and while I am not in the best of health, I do very well. For the last three years, I have made it my "hobby" to write to relatives of cancer patients, to mention there are other methods of treatment for cancer or other malignant ailments than the "regular" M.D.'s usually offer. In that way, I feel I am giving a possible "lift" to ailing Humanity.

Now, with every good wish for the recovery of your husband as speedily as possible, I am

Most sincerely yours,

Lucy Waters Phelps.
(Miss) Lucy Waters Phelps

Central Turnpike

West Sutton, Millbury P. O.

Massachusetts.

6-28

L. —

sent this off
to-day.

O. K. ?

Yours ch.

Copy

June 27, 1955

Dr. Roscoe P. Kandle
Deputy Commissioner of Health
125 Worth Street
New York 13, New York

Dear Dr. Kandle:

Thank you very much for your letter of June 21st which I found on my return from the C.P.H.A. meeting. I am very glad to know that you are expecting a favorable outcome on the classification and salary plan and appreciate your advance notice.

I wonder what arrangements you plan to make with Civil Service. Do you want to hire health officers as provisionals, pending a Civil Service examination or do you plan to hold such examinations in the near future? If that is the case, I should very much appreciate being notified as early as possible as I would definitely want to participate. You mentioned some time ago the possibility of my taking the examination in Denver; do you still think that this is feasible?

Mike Antell has my pink form and I am wondering into which step of the salary scale I would fit? I understand that I would have to discuss the New York University arrangement directly with them.

With kind regards,

Sincerely yours,

Gertrud Weise, M.D.

CW/rk

C O P Y

City of New York

Deputy Commissioner of Health

125 Worth Street
New York 13, N.Y.

Tel. WOrth 2-6900

June 21, 1955

Dr. Gertrud Weiss
1116 Kearney Street
Denver 20, Colorado

Dear Dr. Weiss:

Our new classification and salary plan has been announced for medical positions. According to the proposals (not finally official) the district health officer position will have a salary range of \$11,200 - \$13,600. This is to become effective July 1, although the mechanics of changing payrolls may mean that the checks will be at the old rate of \$8150 with a retroactive adjustment some time in the fall.

Lower East Side is still being held. My understanding is that New York University will appoint you and thereby add \$1200 income. Obviously I cannot speak officially for them.

We are now happily being sought after and have a number of applicants and few openings so I shall appreciate learning whether you are interested in New York City under these revised conditions.

Very truly yours,

Roscoe P. Kandle, M.D.
Deputy Commissioner

RPK:HN

*In honor of
The Recipients of the Award in Nineteen Sixty
The Trustees of Atoms for Peace Awards
request the honor of the company of
Dr. Gertrud Weiss Szilard
at luncheon
on Wednesday, May eighteenth
at one o'clock
at The National Academy of Sciences
2101 Constitution Avenue
Washington, D. C.*

R. L. V. P.

*The Executive Secretary
Trustees of Atoms for Peace Awards, Inc.
Massachusetts Institute of Technology
Cambridge 39, Massachusetts*

Instructions regarding Mrs. G.'s Mail

- 1) Do not open anything.
- 2) Send all first class mail, i.e. airmail, postcards - anything at all in sealed envelopes whether or not stamps are affixed.
- 3) Send also all notices, news letters packages etc. with only the following exceptions:
- 4) i.e. do not send the following heavy journals which come regularly: ~~and~~
 - a) LANCET
 - b) New England Journal of Medicine
 - c) New York Medicine
 - d) American Journal of Public Health
 - e) Bulletin of the New York Academy of Medicine
- 5) As safeguard against loss please make a ^{dated} list of all envelopes forwarded - identifying items simply by the return address or postmark - in duplicate. Keep one copy in Washington and send the other copy in next letter (not together with others)

b) Send all of Mrs. Szilard's
mail to Dr. Leo Szilard in
large envelope by air

Unslotted

J. Kenealy WH 2-0886

JOHN C. KENEALY

off: 1150 Cinc. No 8-7130
Rd. 942-0886

Associate of JHAMAN
NAP 7130

Sub away from
La Jolla
Nov 7 to 12

Ly Bunkerford's;
Stanley Talpers
1712 I Street N.W.
298-6888

1) Racker

Mt Vernon 914 - Owens 9-3777
Oregon 7-4411 - 4417 (Night)
Oregon 9-9000, Rm. H-362
Cornwall ^{on Hudson N.Y. Tr} Egon 914 - KELLOG 4-4716

2) Group Health 2121 Pennsylvania Ave
965-2000 Ext 406

3) Arthur Kerenbaum
Halla Brown

Home: EM-2-6795

(4) Dr. JARMAN (Urologist) 1150 Conn. Ave
NA 8-7130 office
TE 3-1710 home

5) Dr. Regis Baker

TE 3-2000 x 632
home 703-SP 7-3564

6) Mrs. Favour (OL 2-7534)'s Dr.

Harry A. Loreman
off. RE 7-4600
home OL 2-0802

7) Favour's Surgeon:

Dr. Henry Balch 1150 Conn. Ave

8) Mici Teeler's Dr:

Frederic J. Chapman 1150 Conn. Ave
DI 7 9127

GETTING THE JUMP ON THE SYNAPSE

Mystery of nerve impulse transmission may be solved
as Argentine biologist discovers filaments bridging the synaptic space

Among the many scientific concepts first formulated in the age of Aristotle, one of the most durable has been the notion that form and function are separate entities. But when scrutinized by the new discipline of molecular biology, this precept has been found wanting. The electron microscope and sophisticated techniques of biochemical analysis are proving that, at the subcellular level, the division between anatomy and physiology is far from clear-cut.

One of the world's leading molecular biologists is Argentina's Dr. Eduardo de Robertis of the National University of Buenos Aires. Ten years ago, Dr. de Robertis, an expert in nerve morphology and biochemistry, first discovered the existence of synaptic vesicles in the endings of the processes of nerve cells.

At that time, the exact function of the vesicles was unknown. The Argentine investigator suggested that they might be storehouses for acetylcholine and other substances involved in synaptic impulse transmission. He also believed that the vesicles might have the ability to perforate the presynaptic membrane and discharge their contents into the synaptic space.

Both of these hypotheses have now proved correct. In a report to the Centenary Congress of the Mexican Academy of Medicine in Mexico City, Dr. de Robertis told of finding high concentrations of acetylcholine and cholineacetylase in the synaptic vesicles of the cerebral cortex. Through electron microscope studies, he has also redefined the basic structure of the synaptic process.

Essentially, he indicates, the transmission or inhibition of a nerve impulse depends on the number of vesicles produced and on the relative activity of the enzymes that synthesize and break down acetylcholine.

The concept that the vesicles play a key role in impulse transmission was suggested to Dr. de Robertis by the

observation that sectioning of a nerve produces rapid degeneration of the synapse, and that the vesicles undergo lysis after 22 hours.

Another important finding was that repeated electrical stimuli produced significant changes in the disposition and number of the synaptic vesicles. For example, Dr. de Robertis reports, stimulation for ten minutes at 100

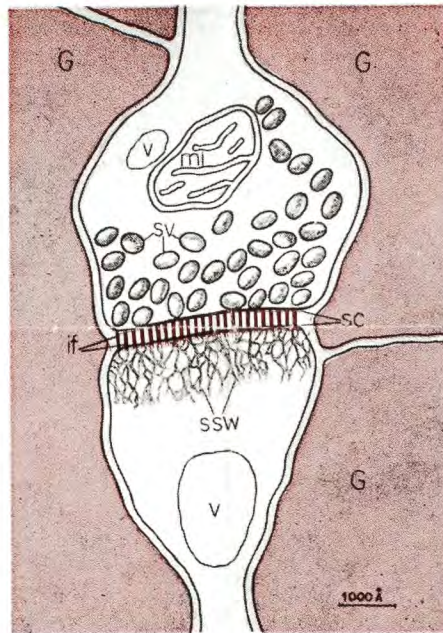


Diagram of synapse shows upper presynaptic component containing mitochondrion (MI), vacuole (V), and numerous synaptic vesicles (SV). The synaptic space (SC) is traversed by newly discovered filaments (IF), which lead to the subsynaptic reticula (SSW). Sections marked G are glial areas.

pulses per second increases the number of vesicles, while stimulation at 400 pulses per second decreases them.

The rapidity and extent of this phenomenon is astounding, says the Argentine biologist. He has calculated that a stimulus of 100 pulses per second over ten minutes will release 60,000 vesicles for every cubic micron of the terminal.

Electron microscope studies have shown that the synaptic vesicles tend

to cluster at points along the presynaptic membrane. Observation also revealed the existence of hitherto-unseen intersynaptic filaments, bridging the space between the pre- and post-synaptic membranes. It is by this route, says Dr. de Robertis, that the synaptic vesicles release their contents to carry on the job of impulse transmission.

Just what the vesicles' contents are has been made clear by new fractionation techniques. The Argentine investigator reports the isolation of two fractions of nerve endings from homogenized brain tissue. One fraction, containing the synaptic vesicles, had a maximum concentration of acetylcholine and the enzyme cholineacetylase, which is responsible for the synthesis of acetylcholine. The second fraction, consisting chiefly of the synaptic membranes, had a higher proportion of cholinesterase, which hydrolyzes and destroys acetylcholine.

By the same fractionation technique, Dr. de Robertis has also found that various parts of the nerve endings contain other, noncholinergic substances involved in the functioning of the nervous system. These include norepinephrine, serotonin, and the enzyme, 5-hydroxytryptophane decarboxylase, which is important in the synthesis of both serotonin and dopamine, the precursor of norepinephrine.

Summarizing his findings, Dr. de Robertis says they demonstrate that the transmitters, enzymes, and other substances related to nerve transmission are localized at a macromolecular level in the complex structure of the synaptic region. "It is on this same level that various biochemical, ionic, and electrical phenomena are integrated to produce the remarkable transmission of the nerve impulse."

The Argentine researcher indicates that more study will be needed to determine whether the synapse can further be broken down, or if it represents the ultimate in the marriage between structure and activity. ■



"commuter syndrome"

- ... when ordinary objects—like chairs and auto seats—assume unusual proportions
- ... when ordinary acts—like sitting and walking—become delicately complicated
- ... when common anorectal disorders are the problem, prescribe comfort for your patient

Anusol[®] *hemorrhoidal suppositories*

Anusol-HC[®] *hemorrhoidal suppositories with hydrocortisone*

Each Anusol-HC Suppository contains hydrocortisone acetate 10 mg., bismuth subgallate (2.25%), bismuth resorcin compound (1.75%), Nicaraguan medicinal balsam (3.00%), zinc oxide (11.00%), and boric acid (5.00%), plus the following inactive ingredients: bismuth subiodide, calcium phosphate, and coloring in a cacao butter and hydrogenated vegetable oil base.

Administration: One Anusol-HC Suppository in the morning and one at bedtime, for 3 to 6 days or until inflammation subsides. Then, maintain patient comfort with regular Anusol, one suppository in the morning, one at bedtime and one after each evacuation. **Precautions:** Prolonged use of Anusol-HC might produce systemic corticosteroid effects.

WARNER - CHILCOTT



Morris Plains, N.J. Makers of Coly-Mycin Gelusil Mandelamine Peritrate

GP41

...but will
he be there
for her
wedding?



**40 to 65...the most critical years for the coronary patient...never a time for
halfway measures. Convenient b.i.d. dosage of Isordil [isosorbide dinitrate]
Tembids can help the man with a "heart" to be a man with a future.**

Potent vasodilating action on the coronary arteries has been proven by many laboratory and clinical studies, and has been uniquely demonstrated by actual *human cine* coronary arteriography. This proven action provides sustained prophylaxis against *coronary insufficiency* and is particularly important after the acute stage of myocardial infarction is past. It aids convalescence by expanding or opening collateral and tributary circulation to help carry needed blood and oxygen to the myocardium. This increases the crucial "margin of safety" or *coronary reserve*, so important to the patient. Ischemia is decreased as well as the tendency to clotting and sludging.

ISORDIL [isosorbide dinitrate] 10 mg. Tablets; usual dosage 1 tablet q.i.d.

ISORDIL [isosorbide dinitrate] TEMBIDS® 40 mg.; Sustained Action Tablets; usual dosage 1 Tembid b.i.d.

ISORDIL [isosorbide dinitrate] SUBLINGUAL 5 mg. Tablets; usual dosage 1 or 2 tablets p.r.n.

ISORDIL [isosorbide dinitrate] (10 mg.) With PHENOBARBITAL (15 mg.); usual dosage 1 tablet q.i.d. Warning: Phenobarbital may be habit-forming.

SIDE EFFECTS: No serious side effects have been reported with Isordil [isosorbide dinitrate]. While vascular headache (an indicator of vasodilating activity) may occur during the first few days of therapy, it can be relieved with simple analgesics or temporary reduction of dosage.

Mild gastrointestinal disturbances may occur. These can be prevented by taking the drug at mealtime. Hypotensive reactions, paradoxical increases in anginal symptoms and GI distress are not common.

PRECAUTIONS: Like all nitrates, all Isordil [isosorbide dinitrate] dosage forms should be administered with caution to patients having glaucoma. Isordil [isosorbide dinitrate] Tembids should not be chewed.

Consult Direction Circular (available on request) before prescribing.

You are invited to send for your copy of "Human Cine Arteriography and Coronary Heart Disease", a booklet which graphically reviews and analyzes the newest "...techniques of visualizing the coronary tree in living humans." Prepared by the Medical Department of Ives Laboratories as an aid to the practicing physician.

Write to: IVES LABORATORIES, 685 Third Avenue, New York 17, New York

CORONARY RESERVE DURING THE "CRITICAL HEART YEARS"...



IVES LABORATORIES, NEW YORK 17, NEW YORK

**ISORDIL®
[ISOSORBIDE DINITRATE]**

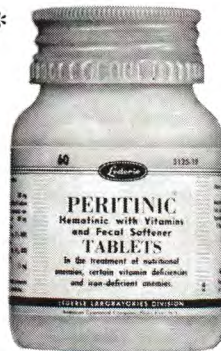
Doctor, why did Lederle add the stool softener DSS to its new hematinic?

to counteract the constipating effect of iron

PERITINIC*

Hematinic with Vitamins and Fecal Softener
*Trademark

In general: A practical, comprehensive approach. Iron + B-Complex + Vitamin C + DSS (Dioctyl Sodium Sulfosuccinate, stool softener). Recommended Intake: Adults, 1 or 2 tablets daily. Supply: Bottles of 60.



In detail: Each tablet contains: Elemental Iron (as Ferrous Fumarate) 100 mg., AEROSOL® OT Surfactant Dioctyl Sodium Sulfosuccinate NF 100 mg. (to counteract constipating effect of iron), Vitamin B₁ (as Thiamine Mononitrate) 7.5 mg., Vitamin B₂ (Riboflavin) 7.5 mg., Vitamin B₆ (Pyridoxine Hydrochloride) 7.5 mg., Vitamin B₁₂ as present in concentrated extractives from streptomyces fermentation 50 mcgm., Vitamin C (Ascorbic Acid) 200 mg., Niacinamide 30 mg., Folic Acid 0.05 mg., Pantothenic Acid (as D-Pantothenyl Alcohol) 15 mg.

a b c d

a b c

1. 2. 3.

a c b

a b d

a d b

Fig I.

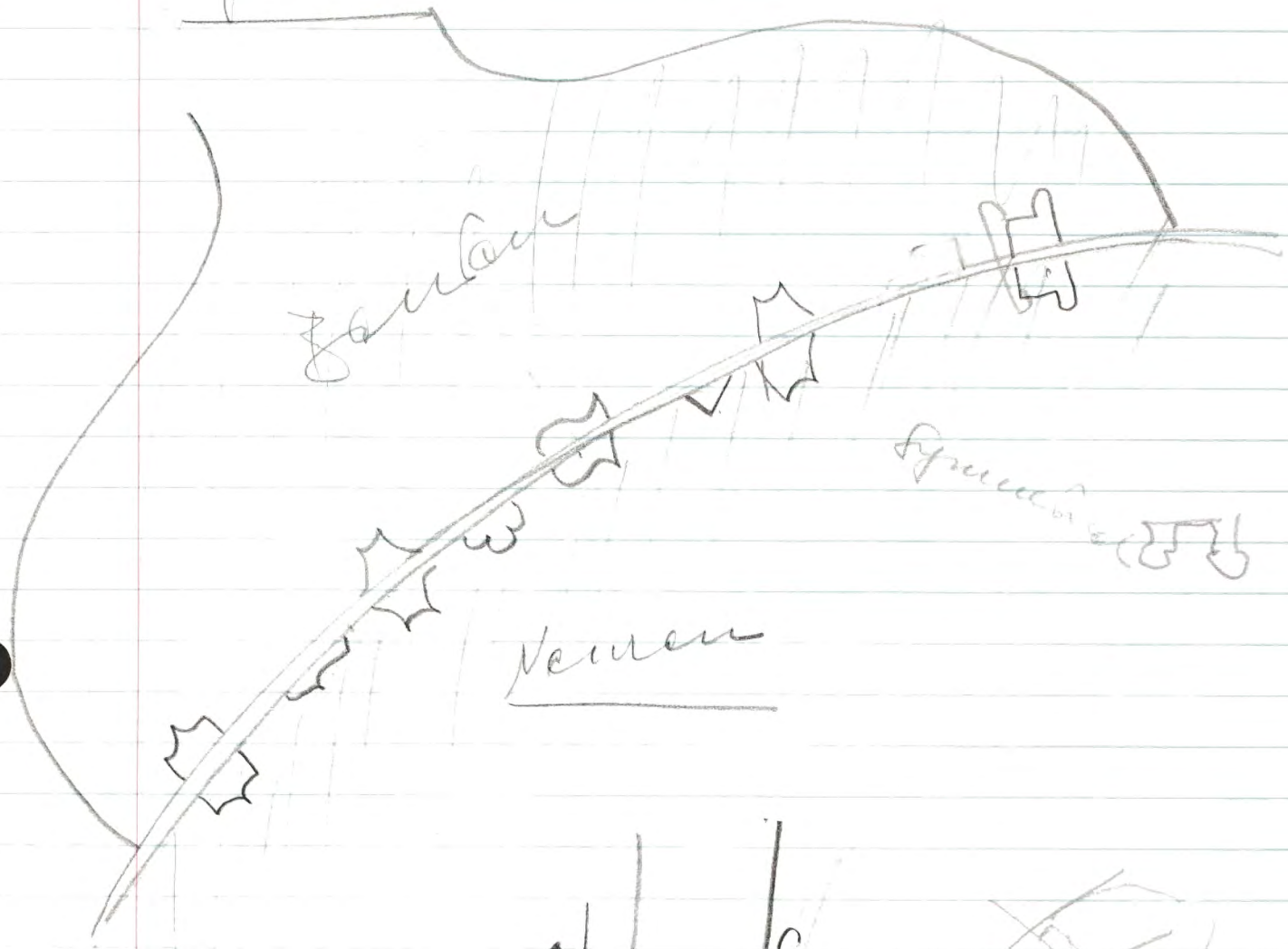
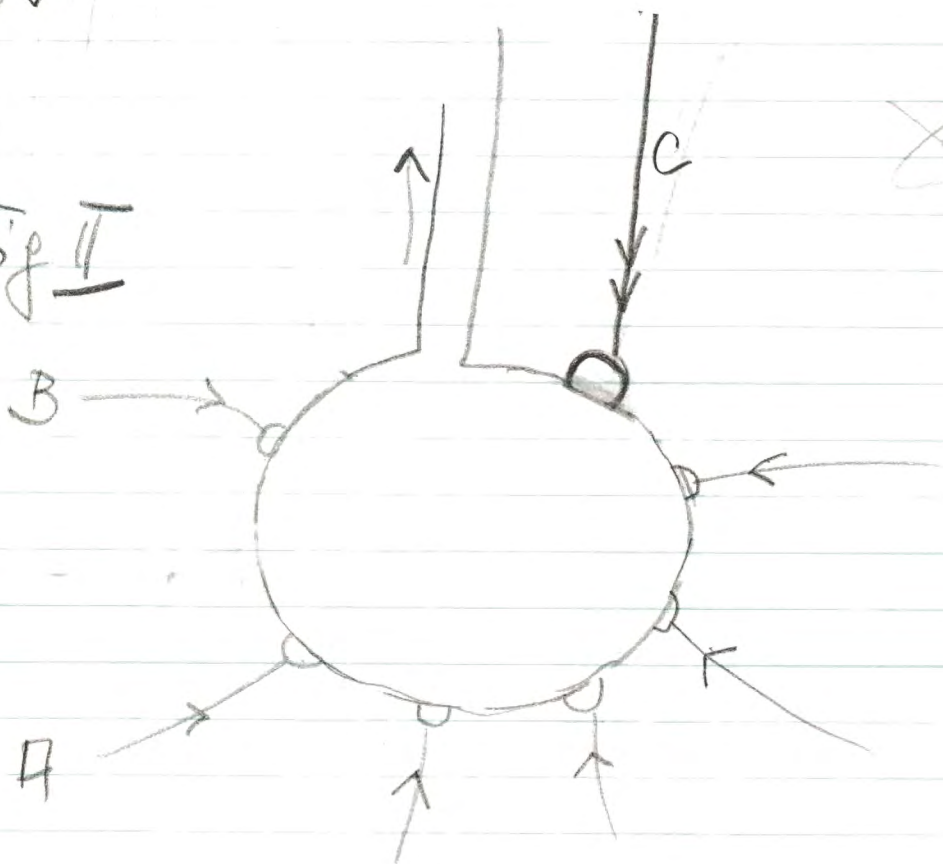


Fig II



DR. LEO SZILARD

~~and DR. GERTRUD WEISS SZILARD~~

NEW ADDRESS

Office: c/o SALK INSTITUTE FOR BIOLOGICAL
STUDIES

P.O. B. 9499

SAN DIEGO, California

Telephone: (714) 453-4100

Home (GERTRUD WEISS SZILARD, M.D.)

JEL CHARRO

2380 Torrey Pines Road

LA Jolla, California

Telephone: (714) 454-6134