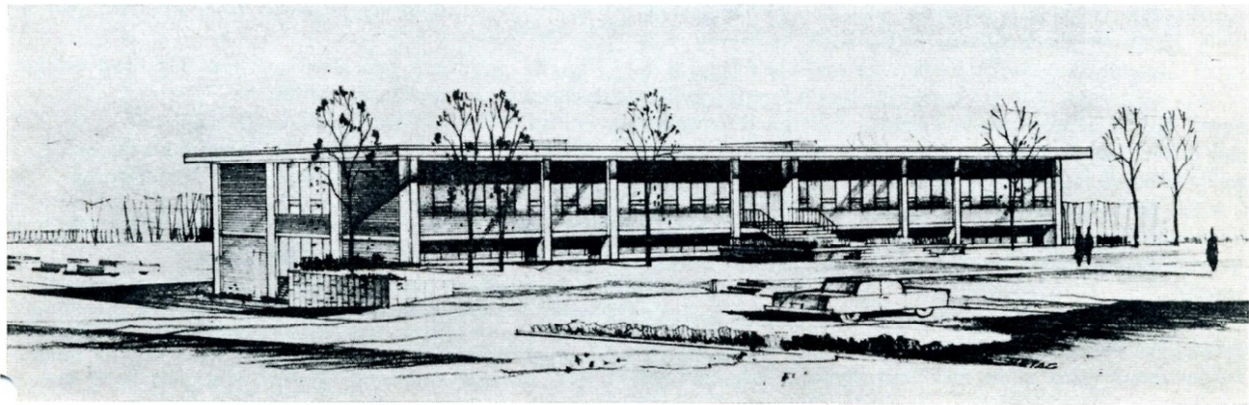


# Of chickens and eggs: How a journal built a center and a field

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Rutgers, The State University of New Jersey*



*This presentation will trace the development of the scientific history of alcohol studies in the United States from the early 1930's until the present as seen through the role and mission of the Center of Alcohol Studies (CAS). The CAS emerged from the faculty of the Laboratory of Applied Physiology at Yale University and has been located at Rutgers since 1962. Focusing on 75 years of the Journal of Studies on Alcohol and Drugs (formerly the Quarterly Journal of Studies on Alcohol and the Journal of Studies on Alcohol), the oldest alcohol/addiction research journal currently published in the United States, the history of the Center of Alcohol Studies will be used as a microcosm and prototype of research centers in the United States and elsewhere in the development and evolution of scientific approaches to study alcohol in all of its facets from molecular genetics to social policy and interventions.*

I hope that my talk will provide some context for you in trying to understand how the alcohol field - our alcohol field - developed. I will focus specifically on the role that the *Quarterly Journal of Studies on Alcohol* and its successors played in shaping the Center of Alcohol Studies and the field itself. In researching for this particular topic, I started with the archives that are housed in the CAS Library and information services section here at Rutgers. I will confess that this speech would not have been possible without

the work of our librarian, Judit Ward, and her staff and my own administrative assistant, Stephanie Peeters. I have gone through perhaps one percent of the material that is available in those archives and selected some very specific benchmarks that I thought were particularly significant in understanding how this field developed and what roles Rutgers and Yale played in developing this field. In particular, I would like to talk about how a journal (our journal, QJSA, JSA, and now

JSAD), shaped a center and a field. In a way, this is a case study of science in motion.

### Historical Timeline of Significant Events

1919/1920 - 1933:	Alcohol prohibition
1922 - 1923:	Laboratory of Applied Physiology (LAP) <ul style="list-style-type: none"> <li>• Yandell Henderson, Director</li> <li>• Howard Haggard, Asst. Director</li> <li>• Leon Greenberg, Senior Scientist</li> </ul>
1927 - 1928:	LAP turns its attention to alcohol <ul style="list-style-type: none"> <li>• Publishes a series of papers on physiology and metabolism of alcohol</li> </ul>
1937:	Norman Jolliffe & E.M. Jellinek receive support for extensive review of scientific literature (Jellinek heads review; Mark Keller joins as bibliographer)
1938/1939:	Bill W. and Dr. Bob establish Alcoholics Anonymous
1939:	Jellinek and Keller join the LAP
1940:	Howard Haggard establishes Quarterly Journal of Studies on Alcohol
1941:	Jellinek becomes Associate and Managing Editor of QJSA
1943:	Section of Alcohol Studies is officially added to LAP with Jellinek as head; First Summer School of Alcohol Studies (6 weeks in length); <ul style="list-style-type: none"> <li>• E.M. Jellinek, Director</li> </ul>
1944:	Mark Keller, Editorial Assistant of QJSA First Yale Plan Clinics for Alcoholism Treatment; Jellinek and Marty Mann form National Committee for Education on Alcoholism, which evolves into the National Council on Alcoholism in 1945 and continues today as NCADD;
1945:	Connecticut Commission on Alcoholism; Leon Greenberg invents Alcometer
1948:	Jellinek, Vera Efron, & Keller publish in QJSA Classified Abstract Archive of the Alcohol Literature (CAAL) published
1950:	Selden Bacon appointed Director; Newly named Center of Alcohol Studies of LAP; CAAL in 60+ repositories in 23 countries; Straus publishes the Yale Plan on Alcoholism; Mark Keller, Managing Editor of QJSA
1951:	Whitney Griswold, President of Yale, begins to "purge" Yale of "applied studies"; Bacon and Straus publish "Drinking in College"
1952:	Jellinek leaves CAS and joins WHO
1959:	Haggard steps down as QJSA Editor and Mark Keller becomes Editor
1961/1962:	CAS finds "friends" in private (R. Brinkley Smithers, a recovering person and friend of Bill W.) and public (National Institute of Mental Health)
1962:	Bacon publishes "The Rutgers Center of Alcohol Studies: A Tentative Conceptualization of Purpose" CAS moves to Rutgers with grants from Smithers and NIMH (≈ \$600,000 for equipment) and guarantees from Mason Gross, RU President, for faculty lines in perpetuity for a "permanent home" for CAS at Rutgers
1968:	Keller et al. publish "A Dictionary of Words about Alcohol"
1970:	Establishment of NIAAA
1973:	The "new man" arrives at CAS from Vermont
1974:	NIDA was established as part of the Alcohol, Drug Abuse, and Mental Health Administration and given authority over the DAWN and NHSDA programs.
1975:	Quarterly becomes monthly publication – Journal of Studies on Alcohol; Bacon retires; John Anthony Carpenter becomes CAS Director and serves until 1981
1977:	Mark Keller retires; Timothy Coffey succeeds Keller as Editor of JSA
1981 - 1983:	The "new man" becomes acting CAS Director
1983:	JSA becomes bimonthly publication and Journal of Studies on Alcohol, Inc. becomes Alcohol Research Documentation, a nonprofit organization; Peter E. Nathan becomes CAS Director, serves until 1989, McCrady serves as acting Director until 1992
1983 - 1993:	Pandina serves as Scientific Director of CAS
1984 - 1991:	Jack Mendelson and Nancy Mello as JSA Editors
1991 - 1994:	Tony Carpenter as JSA Editor
1992 - 1993:	Pandina serves as acting Director (again!)
1993:	Pandina becomes CAS Director
1994:	Marc Schuckit as JSA Editor
2007:	JSA becomes Journal of Studies on Alcohol and Drugs

Figure 1. Historical timeline

Briefly, the study of alcohol has a long past and a fairly brief history, perhaps no more than 80 years. The evolution of the alcohol field is, as with many fields, as much a story about people as it is about discovery. My goal today is to briefly outline the manner in which the scientists of the Center of Alcohol Studies shaped the field that we know today and to tell this story through the lens of the QJSA and its founders. The story is a rich and complex one, and I can only hope to give you the highlights and themes in the time we have together today.

As with many scientific and medical battles waged against physical and mental ailments and social ills, the struggle to raise the bar on the scientific knowledge base regarding alcohol use and its consequences gained its major impetus largely through social activists. They were concerned about the dreadful impact of drunkards and drunkenness on their own lives, the lives around them, and society in general, mostly in an emerging social milieu in the new age of industrialization in England, France, Italy, and the United States. The timeline (Fig. 1) highlights many of the important events of the field, beginning with alcohol prohibition up to the present day.

Social activists such as Carrie Nation and other individuals did a good job of breaking up distilleries and campaigning against "drink", and gave momentum to the alcohol movement in what I would call the pre-scientific era of alcohol studies. It's largely through these protests that interest in the actual scientific aspects of alcohol gained, in a sense, its power. Now just to put this in perspective, we often think about our own prohibition period from 1920 to 1933 in the United States. But it was not limited to the United States, as much of the world was going through some form of alcohol prohibition.

Here are some examples of prohibition laws (Fig.2). Some of them were very lengthy. Our own, obviously, was thirteen years in length, and the Russian attempt was 11 years. I don't think they were particularly successful either based on historical accounts even during the periods of so called Prohibition.



Figure 2. Prohibition laws

Interestingly enough, the Laboratory of Applied Physiology at Yale University was originally the springboard for what is now the Center of Alcohol Studies (established at Yale), and as you will see, and where I will end our little journey today, the springboard for the National Institute of Alcohol Abuse and Alcoholism (NIAAA), now housed in the National Institutes of Health. What I hope to demonstrate to you today is how the articles in the QJSA and its related publications supported by the efforts at Yale, and ultimately at Rutgers, actually laid the groundwork for what is continuing today as the basic and applied science of alcohol studies.

The Laboratory of Applied Physiology was founded at Yale University in 1920 by Yandell Henderson and Howard Haggard. Both men were physicians. The Laboratory was an outgrowth of the Yale Department of Physiology. Initially, activities in the Laboratory focused on respiratory physiology and toxicology, both in theory and practice. The work of the Laboratory included the effects of poisoning in natural settings, such as how it had been experienced in World War I. The Laboratory had also been engaged in solving the serious problem of control of noxious gases in the Holland Tunnel.

During the early days, Laboratory scientists had little interest in alcohol. However, during the late 1920s, they published a series of papers on the metabolism and physiology of alcohol, funded by small bequests from various sources. It was the publication of these papers that appears to be the spark that ignited interest

in alcohol in the Laboratory. During the two decades following the founding of the Laboratory, a number of researchers joined, who can arguably be considered among the founding progenitors of the "science of alcohol studies".

These investigators included Leon Greenberg, who, along with David Lester, invented the Alcometer, the precursor to modern day Breathalyzer. Greenberg joined the lab in the 1920s as an assistant director. He remained at that lab and moved from Yale to Rutgers when the Center moved in 1962, and remained there until his death in 1973. I had the opportunity to be mentored by Leon Greenberg for a very short period of time. Norman Jolliffe, E.M. Jellinek, and Mark Keller also joined the laboratory during the early years.

The Laboratory gained notoriety for its objective and scientific work on alcohol, and received financial support from such sources as the Carnegie Corporation, which provided funding to the Research Council on Problems of Alcohol. Hence, a number of different benefactors funded Henderson, Haggard, and subsequently Jolliffe and Jellinek to collect and evaluate the known scientific literature on alcohol. No doubt, the early benefactors were motivated, in part, by the consequences of the "grand experiment" of Prohibition and subsequently by concerns about the impact of the collapse of Prohibition as well as the reintroduction of legal alcohol on the American public health. This concern was shared by the United States Congress, which called upon Yandell Henderson to appear in hearings on a number of alcohol-related topics, as they were concerned about the impact of the end of Prohibition on society.

In 1927 or 1928 the Laboratory of Applied Physiology faculty published a series of papers on the metabolism and physiology of alcohol. Henderson and Haggard were the primary authors. In 1937, Dr. Jolliffe received a small grant from the Research Council on Problems of Alcohol, which was not connected with Yale University. Jolliffe hired E.M. Jellinek, and Mark Keller to produce a review of everything that was known about



the scientific nature of alcohol and alcohol studies, including materials published by Henderson and Haggard in the prior decade. They conducted the review, and one of the venues in which they first published the results was the *Quarterly Journal of Studies on Alcohol*, the first journal of its kind in the United States. The review consisted of an evaluation of all the scientific knowledge on alcohol that was known at that time. The Research Council was trying to produce something for their lay members to understand about the actions of alcohol, and they were actually quite disappointed about the lack of information that Jolliffe and Jellinek were able to dig up.

Jellinek was accompanied by Mark Keller for the Research Council's project, and brought him as his bibliographer to the doorsteps of Yale. *Effects of Alcohol on the Individual* is the title of the volume produced by Jellinek in response to the Research Council's small grant that contained the larger scope of all of the information he had gathered in his studies, plus a little bit more that he gathered from members of the Laboratory of Applied Physiology (Jellinek, 1942).



Howard W. Haggard, founder of the *Quarterly Journal of Studies on Alcohol*

After establishing the *Quarterly Journal*, Haggard appointed Jellinek the managing

editor and Mark Keller became the bibliographer. What is interesting about Keller, and I understand why he and Jellinek might have gotten along so well, is that he was, as we would say today, "homeschooled." He confessed to me one day in a moment of probably regretful lucidity that he in fact never had graduated from the eighth grade. Despite their lack of formal credentials, both Jellinek and Keller were brilliant minds.

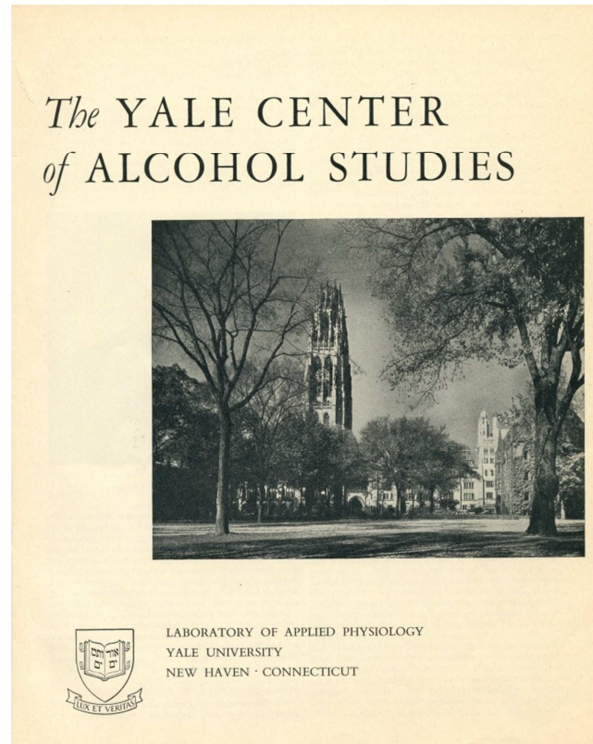
Ultimately, Keller became editor, succeeding Haggard and Jellinek, and he remained editor from 1959 to 1977, a remarkable stretch of time as journal editorships go. The length of editorship gave him incredible power over shaping what the field looked like by controlling the entry point of scientists to that information.

By 1942 and 1943, Jellinek was drawing accolades, as was the Laboratory of Applied Physiology, for the *Quarterly Journal*. The works going on at the Laboratory were principally being conducted by Haggard, Jellinek, Greenberg, and some others.

The *Journal of the American Medical Association* praised not only the work that Jellinek did, but also the concepts that were beginning to emerge, forming the basis of what would become the Center of Alcohol Studies and the alcohol field (Alcohol Problems, 1945). Largely because he was receiving these types of tributes, Jellinek was able to convince Haggard to establish what was called the Section of Alcohol Studies within the Laboratory of Applied Physiology. So, in fact, the Center of Alcohol Studies was preceded by something called the Section of Alcohol Studies, which Jellinek headed until approximately 1948 or 1949. No one can really pinpoint exactly when Jellinek stepped down.

These favorable reviews published in the JAMA also gave legitimacy to the field and to the Section of Alcohol Studies (Rotman, 1945). One thing I would point out is the fact that of the 15 or so references in the JAMA articles, almost all came from the *Quarterly Journal of Studies on Alcohol*. Hence, the journal was already beginning to shape the thinking of scientists and practitioners in the

field in the early 1940s. There were naysayers as well (for example, "John Barleycorn goes to Yale", *The Narcotic Review*, 1947).



I think because of the success of the reviews that he received and because of the growing impact of the *Quarterly Journal of Studies on Alcohol*, Jellinek convinced Haggard to take a chance and begin what was then called the Summer School of Alcohol Studies at Yale University. Its first session was in 1943 and lasted six weeks. The school's lecture series was based upon the work of Jellinek and the materials in the QJSA. Looking at the cast of characters who taught, as well as their topics, you can see the roots of just about every piece of science that continues to exist today in the alcohol studies field, along with the men and women who shaped the field in its scientific infancy (Abridged lectures, 1943).

Bill W., founder of AA, and Marty Mann were among the first attendees of the school. There was always a close association between the movements involving self-help, AA, and the scientific foundation of alcohol studies.

Moreover, the works of the Center and the *Journal* were spread via the Summer School and influenced the work of the attendees over many decades. To date, over 40,000 individuals have attended the school.

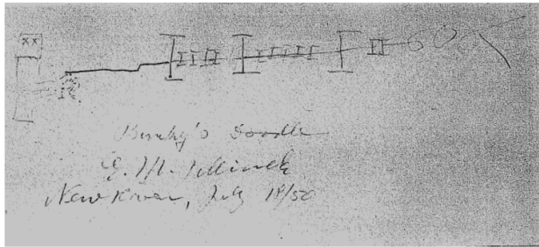
By the 1940s and 1950s, Selden Bacon, a sociologist, had arrived on the scene, along with other sociologists such as Earl Rubington and Robert Straus. They began building a strong base in sociology within the Section of Alcohol Studies. The first rendition of the outline of what was called the *Yale Plan on Alcoholism* features Haggard as director and Jellinek as co-director of the Section on Alcohol Studies. Other founding members included Greenberg, David Lester, and Giorgio Lolli. They became the fundamental folks who laid the groundwork for much of what goes on in the alcohol and drug abuse field currently.

Also important to note is the fact that about the time the Summer School was founded in 1943, the National Committee for Education on Alcoholism was established by several members of the Section of Alcohol Studies and others. The following year, in 1944, the committee became the National Council on Alcoholism, with Marty Mann as its first director, and it still goes on today as the National Council on Alcohol and Drug Dependence.

By 1947, the *Yale Plan on Alcoholism* was beginning to get a lot of serious press. It was becoming well known not only in Connecticut, but nationally, largely through the works of spreading the word in the *Quarterly Journal of Studies on Alcohol* and related publications and during the Summer School sessions.

Jellinek was beginning to develop his seminal notion of the disease concept of alcoholism with a grant that he received in 1946 from Marty Mann and R. Brinkley Smithers. Smithers, as it turns out, himself a recovering alcoholic from a family of recovering alcoholics, became one of the main benefactors of the Center of Alcohol Studies, particularly during the move from Yale to Rutgers in 1962. So there is a tremendous connection throughout history of folks who

really laid the foundation - literally and figuratively - for the study of alcohol problems and the recovery movement. At that point in time, there was virtually no governmental support for alcohol studies. Most funding came from private foundations or small amounts of grants from one organization or another.



Jellinek's doodle

Jellinek's doodle, currently preserved at the CAS Library, showed his first notions of the stages of alcoholism. The actual *Disease Concept of Alcoholism* book was not published until 1960, long after Jellinek left the Center of Alcohol Studies (Jellinek, 1960). The famous rendition of the stages of alcohol and the typologies of alcoholism were developed with small grants.

The way Jellinek found his subjects was basically to cull out selected individuals from Alcoholics Anonymous and do extensive interviews with them to develop his typologies (Jellinek, 1946). There are subtle and arguably important differences between Jellinek's original idea and current renditions popularized in NIAAA brochures and in other brochures.

Bunky, as he was called, wasn't wasting his time. He was working on trying to fundamentally understand the progression of the stages and types of alcoholics. And, he was spreading his view in the growing cadre of scientists and practitioners of the alcohol field. His messages and those of the pioneers were carried largely in the QJSA and its related publications and the Summer School.

Meanwhile, at Yale, Selden Bacon convinced Haggard that they should elevate the status of the Section to that of a Center. As we can figure out, Selden was a better politician than Jellinek. Basically, he forced

Jellinek out of the Laboratory of Applied Physiology. Jellinek went off to Texas to try to open up his own branch and had one School of Alcohol Studies there, which apparently lasted exactly that one session. Jellinek then went on to the World Health Organization to become a key player in the world with the information that came from the Center. Even though he left Yale in 1950, he always had a regard and fondness for the Center and remained involved in its activities up to the time of his death. He actually died at his desk in 1963.

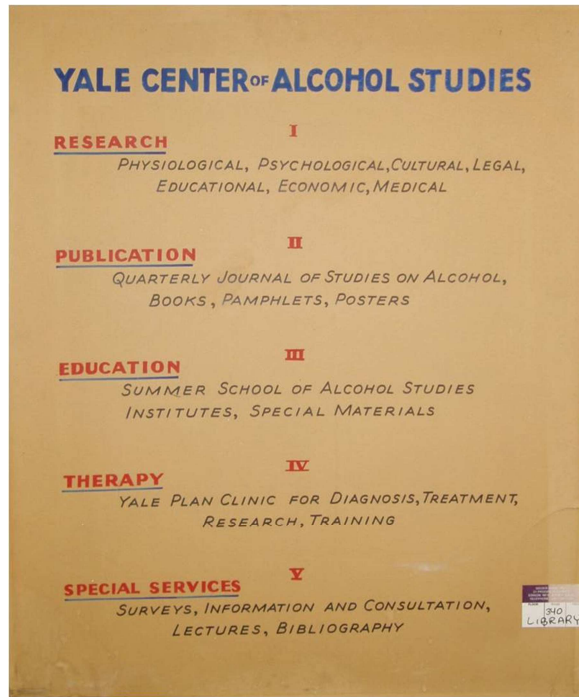


E. M. Jellinek. The picture was taken at the 1959 Yale Summer School of Alcohol Studies.

At the Laboratory of Applied Physiology, a chart was created to show the missions of the Yale Center of Alcohol Studies—namely, (1) research in physiology, psychology, cultural, legal, education, economics, medical research, (2) publication (the *Quarterly Journal of Studies on Alcohol*), (3) education (the Summer School of Alcohol Studies, special institutes), (4) therapy, including the launching in 1944 of the first Yale Plan Clinic



for diagnosis, treatment, research and training with a focus on the delivery of specialized treatment to alcoholics, and (5) special services.



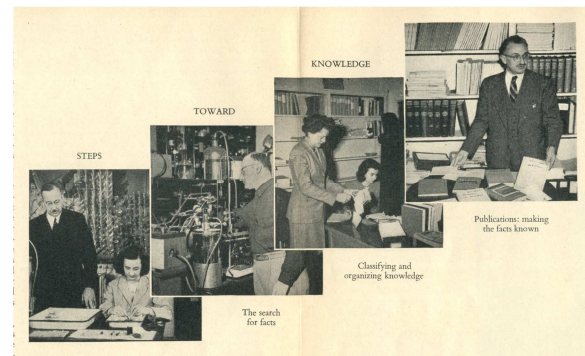
*Handcrafted poster with the original five missions of the Yale Center of Alcohol Studies  
(Rutgers Center of Alcohol Studies Archive)*

The Yale Plan Clinic was adopted by the state of Connecticut and began proliferating throughout the state. The clinics became the first formal, scientifically-based centers for the treatment of alcoholism in the US.

It is interesting to note that the *Yale Plan on Alcoholism* is not only what our center does now, but exactly represents the foundation and the mission of NIAAA, founded in 1970. The US government, through the actions of NIAAA, now provides significant grant money for these treatment centers. So, the foundations for the field were really beginning to emerge in the early 1950s. They remained consistent over time and have become the building blocks for the entire field.

Shortly after that period of time, the Center began producing brochures that outlined the real scientific nature of what the

Center of Alcohol Studies of Yale was trying to do.



*Steps towards knowledge and action  
(Rutgers Center of Alcohol Studies Archive)*

The various roles of the Center of Alcohol Studies were wrapped up in one brochure, featuring Haggard, David Lester (our biochemist and reasonably good baker) preparing some sort of concoction, Vera Efron, who became right hand person to Mark Keller, and Mark Keller himself.



*David Lester in the lab as test subject  
(Rutgers Center of Alcohol Studies Archive)*

In the picture above, Dave Lester was trying to measure alcohol vapors in human respiration. Nobody up to that point was able to figure out how to do this, but Lester was

pretty clever and reasoned that if you could develop a process for measuring the amount of alcohol vapor in the lungs, you could develop a device for estimating blood alcohol concentration. This process became the basis for the Alcometer, which has evolved to current Breathalyzers, with all their obvious uses both in the laboratory and by law enforcement (Greenberg & Keator, 1941).

In 1950 in the *Yale Scientific Magazine*, Bob Straus, who moved to the University of Kentucky and also became a member of the Academy of Sciences as a sociologist, published the first public article on the Yale Plan Clinic on Alcoholism (Straus, 1950). If you read his first paragraph carefully, and compare this to the NIAAA mission statement, you will see almost the exact same language. Hence, what the Center established in the 1940s and 1950s was institutionalized at the national level with the formation of NIAAA in 1970.

We didn't stop there. We got out on the public bandwagon and we participated significantly in public information sessions. Bacon and the Center were putting alcoholism on a national stage on par with the critical issues of the day. Many articles appeared with the Center described as a primary source of public health information about alcohol and alcoholism (Bacon, 1958).

In 1951, shortly after the formal emergence of the Center of Alcohol Studies, the president of Yale, Whitney Griswald wanted to purge Yale of all of its applied institutes, even though the same president had approved the Laboratory of Applied Physiology and enthusiastically approved the Section and the Center of Alcohol Studies (Candon, Ward, & Pandina, 2014). The Center held on until 1962, when it was very clear that Yale was no longer going to support its last remaining applied institute. The actual building of the Center of Alcohol Studies and The Laboratory of Applied Physiology was across the quad from Griswald's office. In fact, even though he wholly endorsed the Center leaving, and wished us well, we later found poison pen letters in our historical collection, in which he attempted to sabotage any

movement of the Center of Alcohol Studies from Yale. I assume this was an attempt to make sure that anything he couldn't have (even though he didn't want it) would fail.

However, Selden Bacon had friends, such as R. Brinkley Smithers, Marty Mann, and other very important men and women in the National Institute of Mental Health. And at that point in time there was only one person and one desk, literally one desk, devoted to the study of alcoholism at NIMH. They cobbled together a deal with Brinkley Smithers and NIMH to bring the Center of Alcohol Studies from Yale to Rutgers. This deal was finalized in 1962. Mason Gross, then president of Rutgers, was farsighted on his thoughts about the Center of Alcohol Studies and what it could bring to the university. In fact, not only did he provide space based on Brinkley's large contributions and financial support from NIMH, but as a real dealmaker, he agreed that Rutgers University would provide state support in perpetuity. This meant line support and faculty support for the Center of Alcohol Studies (not only for the professors moving from Yale, but also for their successors) to assure that alcohol studies would always be a part of Rutgers University. By all accounts, this was what allowed the Center to have mainline support and act independently.



*The Smithers Building at Rutgers in 1962  
(Postcard from Rutgers Center of Alcohol Studies Archive)*

The research portfolio of the Center as it moved to Rutgers included basic animal and human research in physiology, psychology, sociology, and genetics. Other prominent



aspects included education and training and documentation services, which included the *Quarterly Journal*. The Summer School also came and held its first Rutgers School in 1962. One thing prominently missing from its portfolio in its move to Rutgers was a focus on therapy and the development of new therapies for alcoholics. That was because those Yale Plan Clinics became the property of the state of Connecticut. Also, by that time, many other places, including Hazelden, were beginning to develop their own models based on the Yale model, so there was a proliferation of these types of programs based on the original work of the Center and AA. Interestingly enough, in one of my iterations as director, I was able to obtain university support to reestablish our clinical programs at the Center, and we now have the last piece of the Yale puzzle back within our own Center.

Mark Keller was, by all accounts, instrumental in moving the Center to Rutgers. In all likelihood, he, who was in charge of the Journal and documentation services, probably decided everything should rotate around the journal. By 1962, the Center library contained virtually the entire work on alcohol: 6,000 scientific volumes and 20,000 items in total.



The Smithers Building at Rutgers in 2014  
(Photo from Rutgers Center of Alcohol Studies)

The above picture is what we look like now. Trees got bigger; my office is off in the corner. You will also notice another building behind ours, which became one of the founding blocks of the neuroscience campus

at the university. In fact, our building, which was built in 1964, was the third building ever built on the science campus, and was thought to be one of the building blocks, along with Nelson Biology and the Waksman Institute.

These buildings were all placed there in hopes that they would become the catalyst for a new wave of scientific investigation at Rutgers University. In subsequent years, we received other grants, support, and gifts from the Brinkley and Adele Smithers family to build a second building, which houses not only our library facilities, our information services, and our clinical divisions, but also a number of other laboratories in neuroscience.

The culmination of these early activities of the Laboratory of Applied Physiology is clearly etched into history on the 812 pages of the first volume of the *Quarterly Journal of Studies on Alcohol* published in 1940 and 1941. The 34 articles published in that first volume span biomedical, psychological, and sociological knowledge about alcohol, and arguably laid the foundation of the modern science of alcohol studies in the United States.

Quarterly Journal		
OF STUDIES ON		
ALCOHOL		
Volume I	JUNE 1940	Number 1
Contents		
The High Proof of Liquor as a Factor in the Production of Alcoholism. <i>Yandell Henderson</i> . . . . .		
		1
Alcohol: A Study of Social Ambivalence. <i>Abraham Myerson</i> . . . . .		
		13
Personality Factors in Alcoholic Addiction. <i>Nolan D. C. Lewis</i> . . . . .		
		21
The Influence of Alcohol on the Digestive Tract. <i>James M. Beazell and Andrew C. Ivy</i> . . . . .		
		45
The Influence of Alcohol on the Adequacy of the B Vitamins in the American Diet. <i>Norman Jelliffe</i> . . . . .		
		74
The Effects of Alcohol on the Normal and Pathologic Kidney. <i>Maurice Bruger</i> . . . . .		
		85
Cirrhosis of the Liver. <i>Charles L. Connor</i> . . . . .		
		95
Activities of The Research Council on Problems of Alcohol. . . . .		
		104
Effects of Alcohol on the Individual: Review of the Literature of 1939. . . . .		
		110
Medicolegal Reviews: Recent Developments in Chemical Tests for Intoxication under the Motor Vehicle Laws. Chemical Tests in the Proof of Intoxication under Workmen's Compensation Statutes. . . . .		
		182
Current Literature. . . . .		
		196

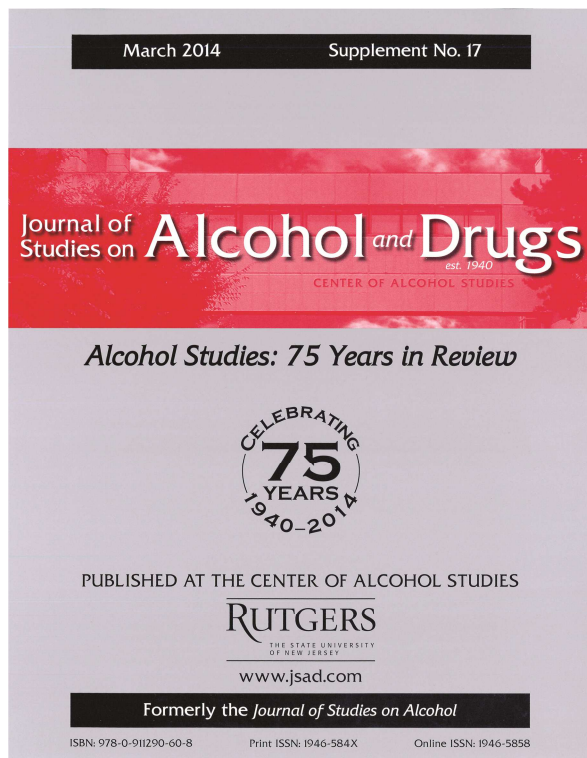
The cover of the first issue of the QJSA  
with table of contents.

In this inaugural volume of the *Quarterly Journal*, the foundation of a center and a field

was, in keeping with our chicken and egg theme of this talk, “hatched”. The journal published not only the outstanding contributions in the field, but probably the only contributions, at least in the United States. It reads like a Who’s Who of alcohol research. Our editorial board consisted of most of the scientists working in the alcohol field at that time. This listing does not include some truly seminal work being done in Europe (e.g., E.M. Widmark). In a way, the fact that the field of alcohol studies has burgeoned from those few pages published in Volume 1 to its current status is a testament to the vision of those individuals who launched that early venture. It is also a testament to the now thousands of scientists and practitioners who have devoted themselves to accumulating and disseminating biomedical, psychological, and sociocultural information and who actively apply that information to treatment, prevention, and social policy development.

*Alcohol and Drugs*, Volume 75 Supplement 17), to mark the occasion of the 75<sup>th</sup> anniversary of the first volume of the *Quarterly Journal*. We look back on the evolution and status of science, or perhaps more accurately, the sciences of alcohol studies, through the lens of seminal materials published in the *Quarterly Journal of Alcohol Studies* and its successors, the *Journal of Studies on Alcohol* and the *Journal of Studies on Alcohol and Drugs*.

One of the benchmarks related to Mark Keller was the organization of the existing alcohol information (in an era predating computers) on punch cards, known as the CAAAL system (Keller, Efron, & Jellinek, 1965). Up until the time of faster computers in the 1970s, you could not conduct a search more quickly than by using these punch cards. We still have this collection preserved; it’s really pretty fascinating, and it just goes to show you the depth of Keller’s thinking about alcohol.



The cover of the 75<sup>th</sup> anniversary  
*Journal of Studies on Alcohol and Drugs*

We have recently published a special issue of the journal (*Journal of Studies on*



CAAAL Manual, sorting needle, and punch cards  
at the Center of Alcohol Studies Library

At this point in time, from about 1962 up to about 1975, no other journals were devoted to publishing alcohol-related materials and few other journals published alcohol-related research. Keller abstracted the totality of the alcohol literature and

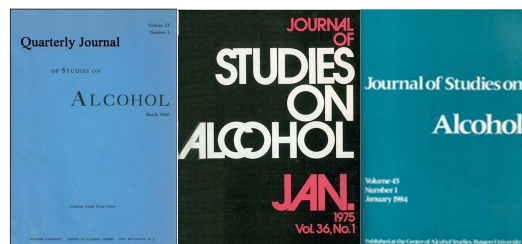
included it in the CAAAL directory, not only from materials in the *Quarterly Journal*, but from all sources. These abstracts were also included in the companion volume (part B) of the *Quarterly Journal*. Keller obtained substantial support from NIAAA until 1983 to continue with the process of abstracting and documenting the literature. This also gave Keller and the Center incredible influence on shaping the field. By 1950, there were 60 CAAAL repositories in twenty-six countries in the world.

In 1968, Keller published the first Dictionary of Words on Alcohol, the first formalization of every single word that he could find in any language that had to do with alcohol in any way, shape, or form. Included in this were brief bibliographies that quote famous founding fathers on alcohol (Keller, 1968). So by doing this and proliferating this around the world, he basically established the lexicon and the template for understanding alcohol and alcohol use.

The journal has gone through many iterations. We went from the *Quarterly Journal*, which was published quarterly, to the *Journal of Studies on Alcohol* in 1975, which was, up until about 1983, published in two different versions. One version contained original articles, and the second, called Part B, included all the abstracts of published and unpublished alcohol literature. These were not author summaries, but they were written by our scientists, our “savant monks” in the basement. We had at least ten or fifteen of them that sat there (I think they had quill pens and those little hats and everything), and actually read the articles, and would argue about their proper summaries. Now, think about what that means, besides the craziness of the work of it all in the context of this computer world we live in now. What it really did was give control to the Center of Alcohol Studies over the information flow of alcohol science before it got out to the rest of the world.

And we are now the *Journal of Studies on Alcohol and Drugs*. I was brought to the Center from Vermont to move the Center in the direction of drugs other than alcohol.

Most of my fundamental research was done with marijuana. I’m the guy who actually helped synthesize THC. I did most of the original research in animal models and then human models of tetrahydrocannabinol, which is the active component in marijuana. I was brought to the Center to help move them into areas other than alcohol. My own path to the Center is a curious one and subject for another time.



Various covers of QJSA/JSA from the past

Currently, at least half of the Center’s support comes from the National Institute on Drug Abuse and the other half from The National Institute on Alcohol Abuse and Alcoholism as well as foundation grants.

See below the history of addiction journals (Fig. 3). Notice that up until 1963, there was virtually nothing but the *Quarterly Journal of Studies on Alcohol*. These charts give you an idea about the proliferation of addiction journals both in English and in non-English titles. Even with the foundation of NIAAA, the *Quarterly Journal* was the dominant outlet for alcohol literature until about 1970.

It wasn’t until almost the 1980s before a massive increase in the number of journals that focused on addiction, and which included alcohol and other drugs. In addition, we begin to see disciplinary journals willing to publish articles about alcohol and other drugs for the first time. In the “old days” (pre-NIAAA), a scientist had to be virtually brilliant and have an actual brilliant breakthrough to expect that a disciplinary journal, whether it be a psychology journal, or a medical journal, or the journal *Science* or *Nature*, would touch an article that had anything to do with alcohol or drugs.



## History of Addiction Journals

- 1876-1914: (Quarterly) Journal of Inebriety
- 1883: Proceedings of the Society for the Study and Cure of Inebriety (now Addiction)
- 1940: Quarterly Journal of Studies on Alcohol (now the Journal of Studies on Alcohol and Drugs)
- 1963: Bulletin on Alcoholism (now Alcohol & Alcoholism)
- 1966: International Journal of the Addictions (now Substance Use & Misuse)
- 1967: Journal of Psychedelic Drugs (now the Journal of Psychoactive Drugs)
- 1971: Journal of Drug Issues
- 1971: Journal of Drug Education
- 1973: Alcohol Health & Research World (now Alcohol Research & Health)
- 1974: American Journal of Drug & Alcohol Abuse
- 1975: Drug & Alcohol Dependence
- 1975: Addictive Behaviors
- 1977: Alcoholism: Clinical & Experimental Research
- 1978: Drug Abuse & Alcoholism Review (now Journal of Addictive Diseases)
- 1983: Bulletin of the Society of Psychologists in Addictive Behaviors (now Psychology of Addictive Behaviors)
- 1984: Alcohol
- 1984: Journal of Substance Abuse Treatment
- 1984: Substance Abuse
- 1987: Mersey Drugs Journal (now International Journal of Drug Policy)
- 1987: Journal of Chemical Dependency Treatment (now the Journal of Addiction)
- 1989: Adicciones
- 1990: Drug & Alcohol Review
- 1990: Journal of Gambling Studies
- 1990: Journal of Adolescent Chemical Dependency (now Journal of Adolescent Substance Abuse)
- 1992: American Journal on Addictions
- 1992: Tobacco Control
- 1993: Experimental & Clinical Psychopharmacology
- 1993: Addiction Research (now Addiction Research & Theory)
- 1994: Drugs: Education, Prevention & Policy
- 1995: European Addiction Research
- 1996: Addiction Biology
- 1996: Journal of Addictions Nursing
- 1996: Journal of Substance Misuse (now the Journal of Substance Abuse)
- 1999: Nicotine & Tobacco Research
- 1999: Heroin Addiction and Related Clinical Problems
- 2004: Harm Reduction Journal
- 2006: Substance Abuse Treatment Prevention and Policy
- 2007: Journal of Addiction Medicine

Figure 3. History of addiction journals (1876-current)

Again, up until the time of the 1970s and early 1980s, the *Journal* was having tremendous influence as the principal, if not sole, outlet for alcohol research. Likewise, the Center exerted influence over alcohol research, not only because of the work of its faculty, but also many of the students. These students became fundamental scientists in the field. Trained at the Center of Alcohol Studies, they went on to become primary alcohol researchers from the Center to other institutions. Also, up to the 1970s, we were

one of the only multidisciplinary alcohol research centers in the country.

Tony Carpenter became director after Selden Bacon retired from the Center in 1975. Below is a photo from Selden's retirement party. Tony is standing there with Mark Keller, and that handsome fellow in the photo is Edward Kennedy. The man you can barely see in the background is Harrison Williams of Abscam fame.



Edward Kennedy, Tony Carpenter, and Mark Keller in 1975  
(Rutgers Center of Alcohol Studies Archives)

What's the significance of these folks? Well, there came a time in the late 1960s and early 1970s when Selden Bacon, Tony Carpenter, and others decided they would try to influence the federal government to develop a research institute on par with the other research institutes of National Institutes of Health in order to establish the legitimacy of the science of alcohol studies. And their partner in that effort was the National Council on Alcoholism. NCA represented the lay arm of the alcohol movement, the arm of recovering people, many of them financially well-off, successful, recovering alcoholics. Together, they worked to convince three important politicians in different ways to establish legislation to create NIAAA. One was Harrison Williams, himself a recovering alcoholic with bouts of depression. The others were Howard Hughes, a recovering alcoholic from Iowa, who also

suffered from depression, and Edward Kennedy. Kennedy was very much interested in developing parity for mental health and alcohol and drug dependence in terms of the health care system. Our Center, along with these allies, was able to influence the Senate and the House to pass legislation which established the National Institute on Alcohol Abuse and Alcoholism. Hence, in December 1970, the NIAAA was established under authority of the Comprehensive Alcohol Abuse and Alcoholism Prevention Act.

In May of 1974, NIAAA and the newly created National Institute on Drug Abuse, along with NIMH, were cobbled together in something called the Alcohol Drug Abuse and Mental Health Administration, which represented the whole spectrum of interrelated disorders. Note, however, this administrative entity was still separate from NIH structures. And all along, the Center of Alcohol Studies, born at Yale and residing at Rutgers, was right in the midst of the development of those efforts which led to NIAAA.

In 1976, the authority of NIAAA was expanded and given additional funding from the Senate to establish Centers of Excellence for Research on Alcohol across the country. CAS was also instrumental in obtaining these resources. As a result of that legislation, over about a two- to three-year cycle, nine other research institutes were established focusing principally on research, both biomedical and psychosocial. All sponsored by the National Institute on Alcohol Abuse and Alcoholism, these cloned at least some of the functions of the Center of Alcohol Studies around the country.

We have transitioned into a new and very interesting era in alcohol and drug studies, as well as mental health studies in general. NIAAA, the National Institute on Drug Abuse and NIMH have been reunited with sister institutes in the NIH. What was the vision statement and mission of the newly born NIAAA? It was of course to increase the understanding of normal and abnormal biological functions related to alcohol use. This vision comes right out of the mission

statements of the Center of Alcohol Studies in the 1940s and 1950s. Also included in the NIAAA mission statement was improving the diagnosis, prevention, and treatment of alcohol disorders, and enhancing the quality of healthcare. The foundations for all of these things were laid out in the original Yale plan, dating all the way back to the 1940s and 1950s.

With the establishment of NIAAA, the ideas expressed in our mission statement received formal recognition and governmental support. This led to the current state of affairs, in which the importance of alcohol research for a scientific and applied approach toward prevention and treatment is understood, along with analysis of the healthcare policy, and incorporation of treatment for alcohol and drug dependence.

#### NIAAA's research initiatives:

- Basic Research on Medications Development for Alcohol-Use Disorders
- Genetic Studies of Vulnerability to Alcohol
- Mechanisms and Markers of Alcohol-Induced Organ Damage and Organ Protection
- Behavioral and Genetic Risk Factors for Alcoholism
- Long-term, Community-Based Prevention of Alcohol Problems at Specific Life Stages: Underage Populations and the Elderly
- Identifying the Neuroscientific Basis of Alcohol-Related Behaviors
- Multi-site, Collaborative Initiative on Fetal Alcohol Syndrome, Women, HIV/AIDS, and Alcohol
- Disparities in Adverse and Beneficial Effects of Alcohol
- Advancing Behavioral Therapies for Alcoholism
- Training the Next Generation of Investigators

Above, you can see the NIAAA research initiatives (NIAAA, 2004). Looking closely,

you will find that every single one of them was something that was done at the Center of Alcohol Studies and is currently being done at the Center, dating all the way back to the eras of the 1930s and 1940s.

Another piece of this puzzle was the establishment of the Research Society on Alcoholism in 1977 (which also publishes a journal). Every significant field needs its own society. Most of the founding members of the Research Society on Alcoholism were students of CAS faculty, including people like Ed Riley and Carrie Randall, both of whom served terms as its president, as have other CAS faculty such as Barbara McCrady.

So, this is the kind of thing that I thought was fascinating to think about and share with you-- not only how CAS has influenced the alcohol field, and how its efforts have given

birth to the field we have right now, but also as a kind of case study. Obviously, neuroscientists aren't schooled in case study methodology, but we are good observers. What I have tried to portray to you today is the case study of how a single institute with a single purpose, growing from some very, very different roots, had the capacity to shape a field for a period of over 75 years, and established the science that we all do today. The field has expanded well beyond the foundations laid by the Laboratory of Applied Physiology, the Section of Alcohol Studies, and the Yale Center of Alcohol Studies. The Rutgers Center is still a vital part of the field, but only a part. Nonetheless, no field should forget its roots, and hopefully talks like this will keep our curious history alive.

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