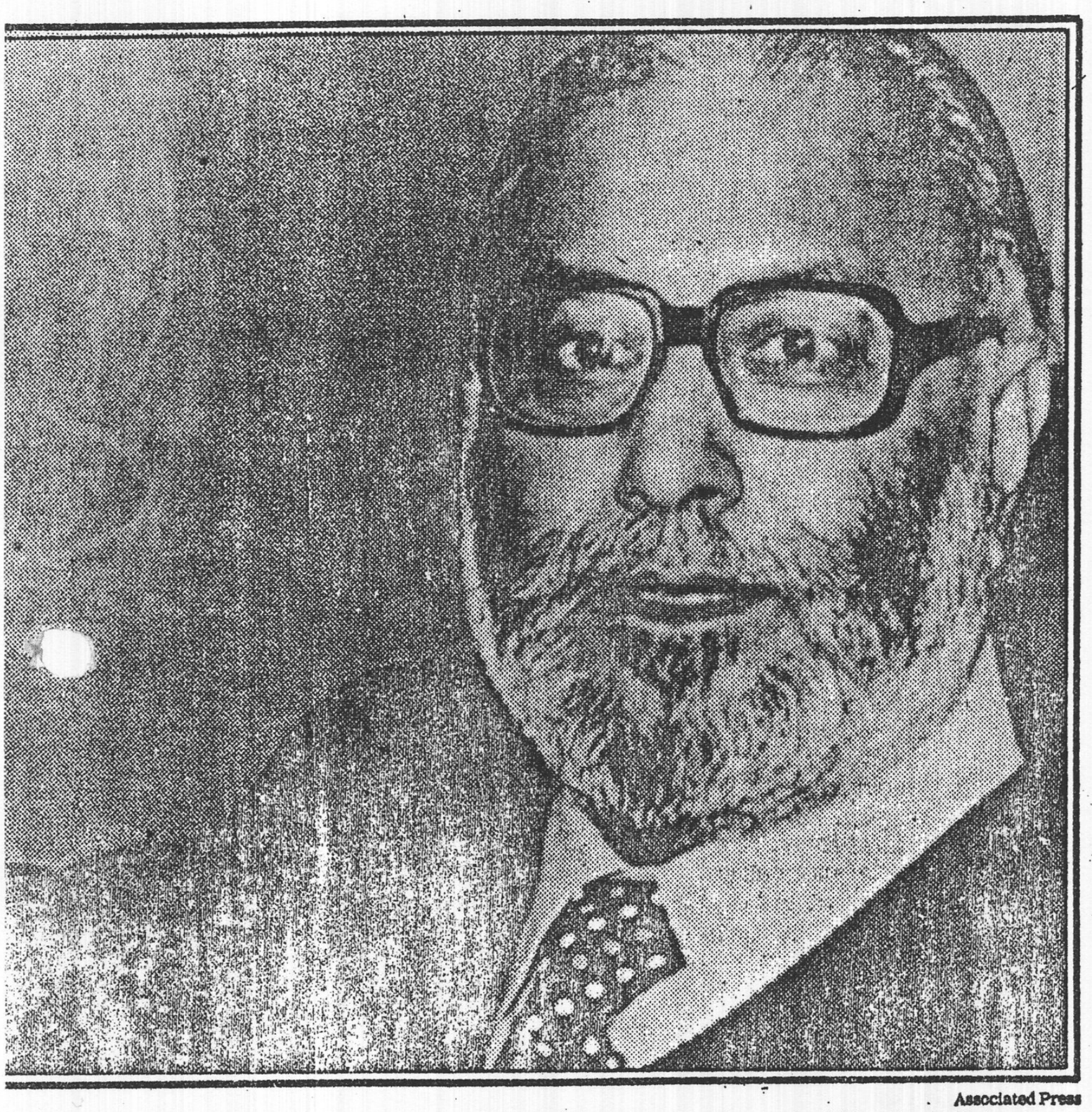
New York Times, July 1, 1984

Italian Research Renaissance Grows in Physics and Genetics



Associated Press

el laureate Abdus Salam, who heads the International Center for Theoretical Physics in Trieste.

Lately Quiescent, Trieste Buds as a Science Center

By HENRY KAMM

RIESTE, Italy — This Adriatic city, often ac-
ed of living in the past, is staking its future on
science of tomorrow.

/ith the support of the Italian Government,
este has recently been chosen as one of two
s of a major scientific institution created by
United Nations Industrial Development Or-
ization. With New Delhi, Trieste will become
home of the International Center for Genetic
gineering and Biotechnology.

his and other ambitious plans for the city are
t of the Italian Government's effort to get the
ntry back into the forefront of international
ence. Proud of a distinguished tradition from
lileo to Fermi, Italy is trying to halt the "brain
in" to other European countries and to the
ited States.

he genetic engineering center, which is still
the drawing board, will join an important
entific institution already flourishing here, the International Center for Theoretical Physics.

Founded 20 years ago by the United Nations International Energy Agency and co-sponsored by Unesco, the center promotes advanced research in physics and mathematics, especially in developing countries, and draws scientists and students from the third world. At the same time, the center has become an international meeting place for physicists through widely attended symposiums and seminars.

The center is headed by Abdus Salam, a Pakistani who won the Nobel Prize for physics in 1979. It has a staff of about 60 scientists, and more than 2,000 postdoctoral researchers work here every year. The facility was created in part to halt the drain of promising scientists from developing countries to the West. By allowing third world scholars access to its research facilities, the Trieste center hopes that they will not need to commit themselves to foreign universities to conduct their projects.

The center shares a building with the International School for Advanced Studies, which was set up five years ago to take advantage of the presence of so many distinguished scientists.

The faculty teaches postgraduate courses in physics and mathematics in English to Italian doctoral candidates as well as to students from the third world.

In addition to Trieste University, whose reputation is highest in the sciences, the city also has an important astronomical observatory and a geophysical experimental observatory.

While promoting theoretical research, Trieste would also like to use the talent from its various scientific institutions to help in the development of a "research park" on the Carso plateau outside the city. The Laboratory of Surface Science and Catalysis is being built in the Trieste Research Area along with international genetic engineering center.

"The research area is unfortunately still a little baby," said Prof. Luciano Fonda, a consultant at the theoretical physics center and a prime promoter of Trieste's ambitions to become a major science center.

Sights on Synchrotron

Professor Fonda, who worked for six years in the United States, is a physicist at Trieste University and deputy director of the School for Advanced Studies. His latest project is to attract the planned European synchrotron radiation facility to Trieste.

In the international competition for the facility, the city is the Italian Government's candidate for the synchrotron, used by physicists to accelerate charged particles to very high energies.

There is tough competition from other countries — West Germany, Britain, France and Denmark. Rome has pledged to meet at least half of the costs of the facility, and the regional administration would contribute about $10 million for land and construction.

The Italian Government's readiness to further Trieste's ambition is partly a result of the city's history. Until 1919, Trieste was the only important port of the Austro-Hungarian Empire and a crossroads of the Italian, Slav and Germanic realms, with important Hungarian, Greek, Armenian and Jewish populations. At the end of World War II, Trieste, with Allied support, beat off Yugoslav efforts to annex it but lost most of its Istrian hinterland.

To compensate the Triestini, post-war Governments in Rome favored the city in the hope of restoring its status as a leading port and shipbuilding center. The decline in world shipping, however, has hurt the city.

Trieste has suffered from spiritual as well as economic stagnation, some of the city's intellectuals say. Once the center of a rich cultural life, it produced such important literary figures as Italo Svevo and Umberto Saba and enough stimulus to make it home to James Joyce for many years.

The intellectuals of Trieste, who tend to be nostalgic about the city's past and scornful of what it has become, are coming around to see hope in its scientific vocation.

Two years ago, Stelio Crise, a highly regarded essayist, welcomed the city's interest in science but with a sense of loss of what he called Trieste's tradition of humanistic culture. Last week, he had a more positive view of the changes.

"For me it's the future," Mr. Crise said. "Science is not only technology — it is creation, it is poetry founded on mathematics. Music is science with mathematics. Science need not be Henry Ford, it can be Einstein and Galileo. Science is not free of the possibility of an opening of the spirit."