

# SWISS

# PHARMA

F. Hoffmann-La Roche AG

FOYA 2020  
Facility of the Year Awards

Category Winner «Equipment Innovation»

Swiss Journal of  
the Pharmaceutical  
Industry

Schweizerische  
Zeitschrift für die  
pharmazeutische  
Industrie

Revue suisse  
pour l'industrie  
pharmaceutique

Rivista svizzera  
per l'industria  
farmaceutica



*Change the future.  
Push boundaries.*

At Roche, our success is built on innovation, curiosity, and diversity - multiplied by 91,747 professionals in 100 countries. By challenging conventional thinking and ourselves, we've become one of the world's leading research-focused healthcare companies.

Are you ready to add practical experience to your course of study?

An internship (3 to 12 months) at Roche can be the perfect place to find out how your discipline looks in action. Interesting projects are taking place throughout the entire company and dedicated students from these fields of study are always in demand:

- Pharmaceutical Sciences
- Pharmaceutical Technology
- Natural Sciences

Bring along your ideas and your ability to research, develop, plan and organise.

The next step is yours.  
[careers.roche.ch](https://careers.roche.ch)

1/21





**BICASA**   
*We Lead Lab*

**Ausgezeichnet mit dem 2020 SEFA LAB OF THE YEAR  
für den Bau des neuen  
«David Rockefeller River Campus of the Stavros Niarchos Foundation»  
in Manhattan, NYC (USA)**

[www.bicasa.it](http://www.bicasa.it)



# BICASA S.r.l. – The story of an Italian company that, step by step, won the trust of F. Hoffmann-La Roche Ltd. in the realisation of the ambitious B098 IVR (Building 98) project

Fabio Biffi, Executive Managing Director and Valentino Inama, Project Manager, BICASA S.r.l., Bernareggio (Lombardy, Italy)

*BICASA was founded in 1947 as a manufacturer of lab consumables thanks to the entrepreneurial initiative of two Milanese families, Biffi and Casiraghi. The spirit that still distinguishes BICASA on the worldwide market, as a global partner capable of designing turnkey laboratories, was born against the background of the post-war industrial and economic boom.*

The production divisions of electro-medical and laboratory instruments, technical furniture and fume hoods, together with international commercial partnerships, are integrated with the production of supplies. The unique ability to carefully «listen» to the needs of «end users» allowed BICASA to become the leader on the Italian market at the end of the 1970s, at the same time as the management was taken to the second family generation.

In 2002 BICASA joined Ahsi Spa, an Italian trading company owned together with ThermoFisher Scientific: the Italian leadership was consolidated and a new ambitious challenge began for BICASA – export. Thanks to constant updating from our partner ThermoFisher in the development of laboratory equipment technology, and to the experience gained in foreign markets, BICASA can now count on the widest and most comprehensive range of technical furniture solutions and chemical fume hoods for laboratories. The company is characterised by its state-of-the-art products in laboratory and analytical instrumentation, together with passion and expertise when it comes to product customisation.

Present in more than 25 countries (among them Italy, Germany, Russia, China and the United Arab Emirates) through its five subsidiaries and its wide network of exclusive distributors, BICASA now boasts successful projects in more than 50 countries worldwide.

The decision by F. Hoffmann-La Roche Ltd. to work with BICASA in the construction of Building 98 cannot fail to make the third generation of the company proud and confident of continuing the Group's international growth on a daily basis.

## **A building with the wow factor – an enthusiastic challenge!**

What makes project B098 IVR (Building 98) so special is its original and distinctive appearance, and the way in which it has brought together various parties (end users, general contractor, subcon-

tractors) that are normally separate, directed them along the same path.

Roche was planning new research laboratories with the utmost flexibility, i.e. no more fixed workstations, and laboratory areas that could be reconfigured quickly and easily based on future analytical requirements.

Roche defined project B098 IVR as «well-conceived» and of great scientific value, designed to guarantee the well-being of the animals used in research experiments and to be considered the benchmark for new applied technological innovation – a «*building with the wow factor where people really want to go to work!*» (Christof Specht, Investment Projects, F. Hoffmann-La Roche Ltd.).

Immediately understanding the project goal is not as simple and obvious when you are not fully involved in a personal capacity, especially when the project and products, in this specific case, are so complex.

## **The challenge of a made-to-measure product**

The BICASA design team immediately understood that a customized product, specially designed for the research requirements, was the only answer, and enthusiastically took up the challenge of developing solutions that could give the researchers maximum operational flexibility, while meeting specific customer requirements.

Although in this project, the customer's vision was formulated more quickly than usual, it was no walk in the park, as «the goal was explained in a sufficient and detailed way and to evaluate the union of two standard furniture production lines by merging them into a single new creation was a natural transition for our team from both the engineering and design point of view. The core product of the project was in front of us, on our screens, similar and compatible



Around 1947: the first headquarters of BICASA S.r.l. in Sesto San Giovanni, a suburb of Milan. (image BICASA S.r.l.)

# BICASA

*We lead lab*

with the preliminary requests: it was feasible and allowed for possible modifications and implementations at first sight.»

BICASA submitted an initial technical proposal that combined the concept required by the customer with its typical design and manufacturing solutions. Along with a request to fine-tune a few details, Roche commissioned a prototype to be examined and modified on the basis of new end user requests and requirements.

The solution proposed was the one that technically met Roche's requirements.

A large number of features were implemented, and changes were made in order to integrate all end user requests into the project. Immediately after the project was awarded, something that made the BICASA project team extremely proud, a further phase of detailed engineering and design review began. It was performed in close cooperation with the customer and the lab planner and led to modifications, sometimes substantial, to the parts of the products themselves, aimed at ensuring they could be used daily in complete safety and guarantee not only ergonomic comfort, something the customer had always focused on, but also operational comfort.

New LED light controls were introduced into the furniture system and new extrusions were developed, just to mention a couple of the features implemented.



Second and current head office of BICASA S.r.l. in Bernareggio, province of Monza-Brianza, Lombardy.

(image BICASA S.r.l.)



Laboratories with sink units in final position.

(image Beat Ernst; © F. Hoffmann-La Roche Ltd.)



Laboratories and work areas with functioning red LED light.

(image Beat Ernst; © F. Hoffmann-La Roche Ltd.)



Interior view of the laboratory with central distribution of the work tables.

(image Beat Ernst; © F. Hoffmann-La Roche Ltd.)



Interior view of the laboratory with distribution of the work tables along the walls.

(image Beat Ernst; © F. Hoffmann-La Roche Ltd.)



Detail of the top horizontal distribution unit. (image BICASA S.r.l.)



Assembly process and testing in the BICASA warehouse. (image BICASA S.r.l.)

### Particular challenges during the development and construction phases, as well as during assembly on site

A significant number of challenges were faced during the detailed development phase, as most of the components were mandatory, such as quick couplings for fluids, pressure reducers, taps, instantaneous water heaters, electronic mixers and sockets, and had to be fitted in dedicated compartments to ensure safety and to comply with local regulations. «We had to squeeze a 200 m<sup>2</sup> of installations into a single bench or sink unit while providing, at the same time, the accessibility required for assembly of all components and their future maintenance. In addition, each unit had to be able to supply the next unit and be supplied by the previous one, and be capable of disconnection from electrical power at the push of a button without interrupting the power supply to the next unit. A highly stimulating challenge!»

Throughout this process, the feedback from the client and the lab planner on the numerous proposals presented has always been meticulous and detailed while criticism and praise were always constructive.

The result of this intensive process has led to the creation of a series of products with unique features and innovative «plug and play» capabilities that make the building laboratory system incredibly flexible.

The project also included a vast number of other elements: stainless steel benches equipped with the most advanced fluid control and electrical safety components, cupboards fully HPL manufactured and capable of housing machines for floor cleaning and electronic equipment, weighing tables for high-precision scales, pharmacy cabinets with built-in safe and dosing stations for bottle preparation and filling with acidified water for animal use.

The work of the BICASA team did not end with the production of the «zero» series, as validated by the Roche team, but continued

during the in-house assembly phase. New solutions were adopted during this step in order to reduce the time required for construction and pre-testing of the products themselves. Internal analysis of the components and related manufacturing phases led to the identification of issues and thus to determination of the exact assembly sequence and supply of the necessary components.

The high level of complexity and the technical difficulties faced during the project have been largely repaid by the satisfaction of having contributed to the creation of a laboratory that will represent the global standard for studies and new drugs research. The fact that the FOYA Award (2020) in the category «Equipment Innovation» from ISPE was granted to F. Hoffmann-La Roche Ltd., is a reward for us, too, and is something we are proud of.

### Contact

Fabio Biffi, Executive Managing Director  
 Valentino Inama, Project Manager  
 Nora Engel, Executive Assistant  
 BICASA S.r.l.  
 V.le delle Industrie, 33  
 20881 Bernareggio (MB), Italy  
 Phone: +39 039 6029 234  
 Mobile: +39 335 7261 328  
 fabio.biffi@bicasa.it  
 valentino.inama@bicasa.it  
 nora.engel@bicasa.it  
 www.bicasa.it