

Global Center for Laboratory Analyses

The chances are that any patient who has taken part in a study of medicinal drugs during the past 17 years has had his or her blood, urine or tissue samples analyzed by Covance in Geneva.

Susanne Stettler

Each day dawns to reveal the same scene: in the early hours of the morning, trucks make their way from the nearby airport of Geneva-Cointrin to an unremarkable brown building in the industrial park of Geneva's suburb of Meyrin and unload one box after another. Some of these packages have quite a "normal" appearance, whereas others are delivered in blue refrigerated containers. But all have one thing in common – their contents are extremely sensitive. They are, after all, samples of blood, urine or tissues which have been sent to Switzerland from Europe, the Middle East, Africa and parts of Asia.

One might say that the test kits are now returning home, for they had been developed and put together individually for each study by Covance in cooperation with its customers, namely pharmaceutical companies throughout the world, for instance in Switzerland Roche and Novartis. "We work together with all the big names in the business but we also do a lot of studies for biotechnology and smaller firms," says Daniel Fustier, CEO of Covance Geneva and Vice-President of Global Technology, Process and New Businesses. And he adds with a hint of pride: "We are the leading central laboratory in Europe."

After the study has been designed (in a statement of work) and the kits for screening and subsequent patient visits have been prepared, they are sent to the doctors in the study centers. A kit will typically contain tubes for the blood and urine samples, glass plates for microscope preparations, pipettes, needles as well as the Investigator Manual, essentially the user manual for the study. Numerous kits of this

kind leave the company building daily. That means an enormous logistics effort, for dozens or hundreds of sample investigators are at work every hour of the day in various clinics.

Filled with samples and documentation, the kits return some time later to Geneva, where the data will be analyzed and evaluated. They are samples for studies of phases II, III, III b and IV, i.e. clinical tests which are indispensable for the approval of a medicament. Jean-Marc Leroux, Vice-President of Global Laboratory Services: "We are the final barrier before the market. So our highest priority is patient safety." Each kit, every sample and every test result is checked several times so that no errors or confusion occurs. The least oversight could have fatal consequences for patients, doctors and laboratory personnel. Exacting safety measures are vital, not least because every sample is contaminated with pathogens.

After Indianapolis, Geneva is the second largest of the five Covance laboratories. Together they evaluate some sev-

eral thousands kits per day; no fewer than 135 million tests have been carried out since 1986. In 2003, Covance carried out a third of all clinical trials performed anywhere and worked together with two thirds of all investigators throughout the world. For them, Covance is an important contact point. The company trains doctors and nurses to perform the assays and is available to answer their questions. Seen in this light, Covance may be called the brain centre of clinical studies.

Furthermore, this brain also devises all kinds of packaging. Jérôme Jeanneret, Associate Director of Operations Europe: "They are simple but efficient, for each kit must be at the right place at the right time and must return to Geneva at the correct temperature." This may be room temperature, depending on the sample, but it may equally be minus 70 degrees Celsius. Thermally insulating packaging is important, because the cooling chain must not be broken during the transport of the samples from the clinic to the laboratory, which may take up to





48 hours. That's why Geneva has a large cold storage facility: a million or so tubes are stored there – at plus 2, minus 20, minus 70 or minus 150 degrees Celsius. The samples wait until they are analyzed or sent on to a reference laboratory or because they are being stored for an indefinite period. The analysis of the samples is a race against the clock. "It is a daily challenge," says Arnaud Carpentier, Associate Director of Haematology & Special Chemistry, "to supply the results to patients and doctors as quickly as possible with maximum feasible quality." Highly qualified technical staff and state-of-the-art laboratories ensure that everything runs smoothly. In terms of technology, Covance stands out with its unique service: exactly the same apparatus and procedures are used in Geneva, Indianapolis, Singapore, Sydney and Cape Town. So a laboratory can take over another's work at any time. The vital importance of this capability was shown on September

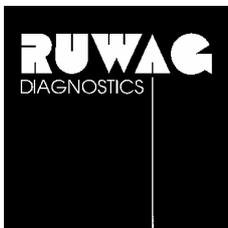
11, 2001. "When the terrorist attacks were followed by a total blockage of US air space, we were already making plans to re-route the samples destined for Indianapolis to another of our other laboratories," explains Arnaud Carpentier. "However, they turned out not to be needed because planes were soon able to take off and land again. But we would have been ready to operate normally."

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Facts and Figures

Covance Inc., with headquarters in Princeton, New Jersey, was set up in 1987 as a spin-off from Corning Inc. Today, the company employs a total of 6,500 people in 18 countries. It has branches in North and South America, Europe, Africa, Asia as well as Australia, and there are plans to expand to India, China and Japan. Covance is one of the largest developers of medicinal drugs in the world and maintains five large analytical laboratories in Indianapolis, Meyrin near Geneva, Singapore, Cape Town and Sydney. A workforce of 350 is employed in Geneva: 100 in the laboratories, 100 on clinical trials, 100 in the sample ending unit as well as 50 in administration. Customers of Covance include the world's fifty largest pharmaceutical and biotechnology companies.
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