

THE MICROBIOLOGIST in INDUSTRY

What inspired you to enter this career?

I was fascinated by biology when I was young – a little by what we did in biology at school but to be honest more by TV programmes on biology and medicine

What are the highs and lows of your career so far?

Highs

I love the fact that my career is developing. I have done training courses and moved job to achieve promotion

Lows

Paperwork and the daily routine which can be monotonous.

Are there opportunities to travel? Yes!!

Especially in America – lots of money and a shortage of scientists with experience but less holidays!

A TYPICAL DAY IN THE LIFE OF AN INDUSTRIAL MICROBIOLOGIST

Flexitime is common – I can start any time between 8 and 9.30. I generally start at around 9.

09.15: Collect samples to test. These include for example the sterile water used to make the medicines which are the products of this company. Standard microbiological tests are carried out on these to investigate bacteria growing in inoculated agar over 5 days.

10.30: Endotoxin tests on medicines.

These are chemicals produced by *E. coli* which would cause toxic shock if present in for example cancer drugs for leukaemias

11.00- 11.20: Coffee break

11.30: pH and conductivity tests on water samples collected earlier. Compilation of data into daily and monthly reports

13.00: Lunch

13.30: Tests on an antibiotic from a plant in Shannon. Spike cultures of target bacteria with different concentrations of the antibiotic and incubate. Use UV light to measure turbidity of cultures and therefore how many bacteria are present.

Analysis of data to determine how much antibiotic should be in each tablet

16.00-17.30: Finish-depending on start time and lunch break

After work: There is a social club which organises football, golf, basket ball on a weekly basis. There are also barbecues and weekends away organised – we have a weekend in Madrid coming up!

What qualifications are involved?

I did a BSc in Science at UCD. Most people come in with a relevant degree or diploma. I specialised in Microbiology in the third and fourth year. One of the best things about this course was that it involved a work placement for 3 months. This put me at an advantage when I came to apply for jobs because I had industrial experience on my c.v. A large number of my classmates were offered their first job in the place they did their work placement so I realised what an advantage it was to choose a course which included work experience.

What subjects do you recommend at Leaving Certificate?

Biology is obviously the most directly relevant but I found Chemistry at LC a huge advantage when I got to college

What qualities do you need to succeed?

An interest in microbiology, good powers of observation. Determination to succeed – it requires dedication and hard work to get your

Career Profile

	Career 1	Career 2
Skills/Qualities Needed		
Pro's, Advantages, Good Points		
Cons, Disadvantages, Bad points		
Leaving Cert subjects advisable		
3 rd Level Qualification required		

Questionnaire

- is Industrial Microbiology for YOU??

Circle the answer most like you!

1. When science programmes start on television I usually switch to another channel

AGREE

NOT SURE

DISAGREE

2. I would like to travel and work abroad.

AGREE

NOT SURE

DISAGREE

3. I get bored easily with repetitive tasks

AGREE

NOT SURE

DISAGREE

4. I like working as part of a team

AGREE

NOT SURE

DISAGREE

5. I am good at noticing things

AGREE

NOT SURE

DISAGREE

6. I like a routine in my life

AGREE

NOT SURE

DISAGREE

7. It is important to me to be doing something which is important to others

AGREE

NOT SURE

DISAGREE

8. I would not like the responsibility of doing something where people are endangered if I get it wrong

AGREE

NOT SURE

DISAGREE

9. I only work at subjects I am good at

AGREE

NOT SURE

DISAGREE

10. I don't mind repetitive tasks as long as I can see their purpose

AGREE

NOT SURE

DISAGREE

Scoring

For questions 2,4,5,6,7,10

AGREE = 3, DISAGREE = 1

For questions 1,3,8,9

AGREE = 1, DISAGREE = 3

Your score	Is industrial microbiology for you?
0-7	You might be more suited to a career elsewhere!
8-14	You definitely have some of the qualities needed to be a successful industrial microbiologist
15-22	Industrial microbiology is well worth considering – you have many of the skills and personal characteristics which would enable you to progress in this career!

