FOOD AND DRINK

The big cheese of the Fat Duck

Caroline Phillips meets Heston Blumenthal, the Willy Wonka of modern British cooking, and samples his distinctive brand of innovative and investigative cuisine

some extraordinary kit in his kitchen. A rotavapor machine that distils natural essences, a water and oil bath, a canister containing liquid nitrogen and a gleaming machine that turns purées into edible shaving foam. There's a desiccator and pump to suck moisture out of chips, test tubes, overhead stirrers, mini filtration units and magnetic mixers. And now he falls delightedly upon Pishers laboratory catalogue. "Heat pads! You put them on a beaker of water with magnets underneath and it keeps it stirred. Can you see the vortex it's creating?" he asks ecstatically.

Suddenly he sketches a brain, nasal passage and oesophagus - with arrows indicating "retronasal" and "orthonasal", "When we eat, the food goes in here and all the flavour molecules go up here to the olfactory epithelium," he says. "That's how we've been trying to create the perception of tasting a smell." Last month he experimented with Felicity Dahl (widow of Roald) and the actress Jane Asher. "One way to deliver a flavour into the mouth is to put a drop of essential oil into a balloon and breathe it in. They had a hoot inhaling helium, then talking in

This Willy Wonka has worked in the Swiss laboratory of Ferminich, the third largest flavour company in the world. "I wanted to make a mouthful of food with four separate flavours. You use four sheets of jelly, each with a different fat level. The more fat, the slower the flavours release." explains with fast enthusiasm. "We did basil, olive, caramellised onion and thyme." His restaurant - in which he works a 100-hour week - is funded by such consulting work.

The speaker is Heston Blumenthal, 37, the chef-proprietor of The Fat Duck in Bray, Berkshire - which this week receives its third Michelin star. Three stars is the ultimate gastronomic distinction, bestowed on only 47 restaurants worldwide - with two now in the salt speck on the map that is the village of Bray. Blumenthal got his first star in 1999. No one else has earned another two in just five years. And it's only nine years since he started cooking professionally. "It's amazing!" says Would you guess? The Fat Duck, Bray, Berkshire

he former debt collector has Blumenthal, who sports a white jacket and a shaved head. "I feel a little guilty. My reaction is: 'Is this deserved?' Brilliant chefs like Raymond Blanc never got a third star."

Blumenthal, one of Britain's most innovative cooks, heard the news last week. He was in Madrid at a food festival with some gastronomic grande fromages: Michel Roux (3 star Waterside Inn, his neighbour), Gualtiero Marchesi (the papa of modern Italian cuisine), Ferran Adria from El Bulli (Blumenthal's cooking is often mistakenly compared with his) and Juan Marie Arzak (the padre of modern Spanish gastronomy). "Michel made a lovely speech, saying how proud he was of me," says Blumenthal, "Amazing, given what a god Michel is." They celebrated with a 12-course tasting menu at La Broche. "We finished the main course at 1.30am."

Blumenthal opened The Fat Duck in 1996. It has a "very ungrand" pub dining room. The tasting menu costs £85, excluding coffee, and there are 1,200 bottles on his international wine list, including an £1,150 vintage Chateau Margeaux. A card written by Blumen thal sits on the table. "As smell, followed by taste, are the strongest memory jolters of all the senses, I thought it would be a great idea to come up with some nostalgia dishes," it reads. "If you're interested, please indicate the decade in which you grew up and foods that evoke your childhood memories. be it Heinz tomato soup, boiled egg and soldiers, rice paper-wrapped chocolate



Blumenthal: 'I feel a little guilty. Is this deserved?' Blumenthal dubs his scientific style

often known as molecular gastronomy - investigative cuisine. Apart from a week's trial in 1984 with Ravmond Blanc at Le Manoir aux Quat'Saisons, Blumenthal is self-taught: a feat he achieved by ingesting Larousse Gastronomique and devouring "hundreds" of other cookery books. Above all, his approach was born of Harold McGee's 1984 seminal book, On Food and Cooking, which outlines the chemical processes that take place during cooking. McGee's opening sentence - that meat

doesn't have to be browned to seal in

the juices - inspired Blumenthal to

start debunking other culinary myths.

Peter Barham, a Bristol University physics professor, corroborated Blumenthal's early discovery that salt is unnecessary in water to preserve the colour of vegetables. Nowadays, Barham and Blumenthal brainstorm. And Blumenthal incorporates into his menu the findings of Professor Edmund Rolls and Dr Charles Spence, from the

Department of Experimental Psychology at Oxford. Now he's talking about the late Nicholas Kurti, emeritus professor of physics at Oxford, to whom molecular gastronomy owes much.

Blumenthal is fascinated by psychology, the mechanics of flavour, and flayour encapsulation. His cooking relies on unexpected mixtures of textures, tastes and contrasting temperatures. All his dishes are a challenge to preconceptions. He has anarchic plans to serve food that has the taste of one ingredient and the smell of another. He's even talking about putting headphones on diners for them to experience a course where sounds change the way they eat. "You'd eat something soft and listen to something crisp," be says. "Your brain would make you think you were eating something

Green tea (to cleanse the palate) and lime mousse with a shot of vodka arrives. It is "cooked" in liquid nitrogen and brought to the table in a canister, trailing disco-style dry ice. It tastes intriguing like an exploding frozen meringue. It dissolves like a cloud. no" aska manager, Didier Fertilati.

An onuse bouche of orange and best-root jelly follows. The orange-coloured jelly is golden beetroot and the red one is blood orange - underlining how sight influences our taste perception.

Next, the dare is to "taste a smell" -this is Blumenthal's current obsession with a dissolving breath freshenerstyle strip infused pungently with essence of oak. This prepares the diner for the truffle toast which accompanies a sublime dish of jellied quail consomme with pea purée, langoustine cream and parfait de foie gras. Blumen-

thal points out that we taste with our nose, ears, eyes, touch and memory; and this is a flavour memory course, recreating the great British childhood reminiscence of jetly and cream.

Snall porridge arrives, a flavoursome dish intended to circumvent established reference points. ("Snail porridge?" grimaced a pensioner last week on BBC News. He was standing at Heston service station, from whence Blumenthal jokes his name came. "There's only one thing you do with snails," he

'Heat pads! You put them on a beaker of water with magnets underneath and it keeps it stirred. Can you see the vortex it's creating?'

continued, "squash them with your feet.") Instead of grey gloop, it is green (paraley), red (jabugo ham) and white "It reminds me of eating snails at Christmas," says Pertitati, his eyes misting. Diners have to deal with harriers before eating," explains Blumenthal. "If you call crab ice cream frozen crab bisque, it seems more acceptable than something which we're conditioned to think of as sweet."

Snalls are followed by sardine on toast sorbet (delicious) with salmon eggs and a balotine of mackerel. Next is posched salmon in liquorice jelly, a juxtaposition of textures "to stimulate the eating experience"; then a succulent and luscious roast pork belly.

Rather than cooking meat at a high temperature then resting it, Blumenthal and Peter Barham have devised a method whereby meats are cooked at temperatures low enough (around 60 degrees) to avoid setting the protein. Delice of chocolate with leather, oak and tobacco chocolate follows.

Blumenthal incorporates many of these principles in his book Family Food. A recipe for the perfect fried em? Split the yolk and albumen; cook the white in a frying pan; then put the yolk into the centre of the white and put the pan in the oven. Recipe for cooking pulses? Boil them in battery water, sold at petrol stations. (Calcium and hard water are the enemy of green vegetables and pulses.) Roast chicken? Cook it at 60 degrees for about four hours. The book is also full of experiments to involve children. "Blindfold them to eat something," says Blumenthal, with characteristic warmth. "Or make them hold their noses and taste salt and sugar to see if they know what it is."

Blumenthal's wife Susanna, a former midwife, follows his principles when she cooks at home. "She makes Sunday roasts with potatoes, cauliflower cheese, either braised cabbage or broccoli with chilli, confit of carrots and peas," he says cheerfully. The couple have three young children. "My daughter. Joy, loves cauliflower cheese so much that she asked to have her candles in it on her sixth birthday. Then she had her cake afterwards."

Blumenthal grew up in London in a one room basement flat in Paddington. "My sister and I shared a bedroom with our parents until I was nine years old." His father, Stephen, sold photocopiers and when he made some money, they moved to High Wycombe. Blumenthal went to grammar school, where he took five A levels. "I kept swapping and dropping them. Finally, I just got one A level, in art." When Blumenthal was 16, the family went on holiday to France and ate in L'Oustau de Beau Maniere in Provence. Blumenthal was dumbstruck by the sommelier's handlebar moustache, cheese chariot, smell of lavender and lobster sauce poured into souffles. That was when he decided to become a chef.

Last year, Blumenthal organised an Alice in Wonderland mood-altering dinner. The borderlines between food, nutrition and drugs were blurred, to highlight the ways of delivering a flavour. "The main course was rabbit tea." he laughs. "Women dressed as Alice poured tea into braised rabbit containing caffeine, while men with ears sprayed coffee in the room, which was changing to yellow."

He served food injected with Siberian ginseng, betaine (to tickle the libido but disguised in rabbit rillettes) and tryptophan - the so-called happy amino acid, found in Prozac and, on this occasion, in Blumenthal's chocolate ganache. It was for the Cheltenham Festival of Science. Does he plan to do this at The Fat Duck? "I would

for a private party."

Five years ago, Blumenthal ran a bistro. What he'll be doing five year's time is anybody's guess. "There's a young chef in Italy doing cyber eggs. You stuff a bit of cling film with everything from chocolate to egg and caviar, shove a knife in, then suck out the contents. lt's not what I'm going to do. But that's what I call creative." Is Blumenthal heading a culinary revolution? He shrugs shyly. 'I think Willy Wonka was the trailblazer.

