

while two additional patients, Connor (aged 19 years) and Nikki (aged 15 years), are not introduced until the closing scenes and their stories

never fully develop. But for Declan and Natasha, news of their remission and discharge is a substantial victory, both for the specialist unit and for these

individuals who faced cancer with such inspiring optimism and resilience.

Elizabeth Gourd

Theatre

Edinburgh Festival Fringe Roundup

Dr Data: The Answer to Cancer

Cancer is not one disease but hundreds—not one emperor of maladies but an empire of related conditions sprawling through the human body. Perhaps reflecting that fact, most Edinburgh Fringe Festivals see a glut of shows about cancers of various stripes. Each Fringe exhibits several medically themed shows, dealing with a diversity of conditions from Alzheimer’s (2015’s *It’s Dark Outside*) to organ donation (Jarlath Regan’s impeccably-named *Organ Freeman*). Nonetheless, shows about other ailments come as single spies; theatrical examinations of cancer come in battalions.

Three shows at this year’s Fringe—one discussion panel and two plays—dealt not just with cancer but with cancer in Scotland. For any readers wondering what makes it necessary to deal specifically with the Scottish experience of cancer, a graph shown to the audience at the start of *Dr Data: The Answer to Cancer* makes things clear. The graph consisted of three stark lines: the mortality rate of cancer in Europe; that in the UK, this mortality rate lingered just above the European line; and, substantially higher up the graph, the mortality in Scotland. All three lines are gradually decreasing over time, which is the good news—but the gap between Scotland and the rest remains, the decline stubbornly gradual.

Hence, then, *Dr Data*, part of the *Cabaret of Dangerous Ideas* series, which proposed that huge amounts of data—specifically genomic data—can help tackle cancer. The event teamed Professor Aileen Keel (Scottish Cancer Task Force, Edinburgh, UK) in her capacity as director of Scotland’s

Innovative Healthcare Delivery Programme, with a computer scientist, Dave Robertson (University of Edinburgh, Edinburgh, UK), to present their “Dangerous Idea” and answer questions from the audience.

Keel and Robertson’s proposition is that data—massive amounts of it, sifted and shuffled at the genetic level—will be far more important in the fight against cancer than any new drug. A small but growing number of patients with cancer are having their genomes sequenced, and this effect, the pair contends, is where the greatest advances against cancer will be made in the decades to come.

Taking questions from an audience by turns enthusiastic and sceptical, Robertson and Keel explained further. The current system, targeting different drugs to particular cancers, is a blunt instrument. With genetic data, doctors might discover that only patients with a particular genetic mutation need, or could benefit from, particular drugs. Without it, we are left with the bludgeon, perhaps exposing patients to side-effects with no benefits to their condition.

In the past decade or so, the cost of sequencing a particular genome has tumbled from US\$1 billion to US\$1000. Each of us is worth about one gigabyte of data—multiplied across Scotland’s population, that is 5 million gigabytes, a vast amount. The problem to solve is not paucity of data but in the construction of systems to understand it, to filter out noise or correlation wearing the mask of causation. Robertson’s team are still engaged in the process of pulling all the data together from various

different silos, marshalling it so that it can be constructively mined.

The structure of the event—mostly questions from the audience—allowed a proper debate about the claims on offer. Can we afford to do this? Keel maintained that we can not afford not to: new cancer treatments are so expensive that we need to make sure they are properly targeted. Will Brexit affect the data-sharing situation? In summary: the jury is out. And most importantly, what are the pitfalls? The possibilities for mischief are broad and discomfiting—information might leak into the public sphere or into the hands of private firms, although there are currently legal safeguards against data-selling.

Flawlessly hosted by the sparky Susan Morrison—here needling the panellists, there teasing the audience—*Dr Data* proved a fascinating guide to data’s forthcoming role in cancer treatment, dealing with difficult topics, and only seldom tipping into wonkishness.

The Edinburgh Festival Fringe ran between August 4–28, 2017, in Edinburgh, UK



Dr Data: The Answer to Cancer



1 in 2 Chance

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1 in 2 Chance, a new play by the Fox and Hound Theatre Company, is not directly biographical, but is nonetheless inspired by the experiences of writer Helen Fox, whose father died of cancer at the beginning of 2017.

The play draws its title from the uneasy fact that one in two UK adults born since the 1960s will be diagnosed with some form of cancer. It follows the experiences of Gemma Fox, a young woman who lost her mother to cancer and now faces her own diagnosis of cervical cancer. It begins with the indignity of a smear test, played for mordant laughs, then moves through the grim cycle of treatment and—perhaps—recovery. Cancer, though, is just the jumping-off point, the biography of a single malady that broadens into an examination of the crisis it provokes in her family.

Gemma's father Matt is an alcoholic, and makes a swift return to the bottle after learning his daughter is at risk from the same disease that killed his wife. Cadge Crawford, also the play's director, provides a powerful performance as Matt, a man steeped in drink since (and, as we learn, before) the death of Gemma's mother years ago. He provides real emotional heft (and, incidentally, can drink a full Corona on stage in what must be a Fringe record time).

Matt's destructive drinking provides the strongest scenes in the show—in a way, the real enemy is not the

cancer but the deterioration in human relations it produces, and Crawford's portrayal of a man by turns grief-stricken but helpless to communicate is powerful. Further examinations of cancer's effects come via the people Gemma encounters during her treatment—a tar-humoured nurse and a fragile 17-year-old with ovarian cancer.

Some of the dialogue sparkles—an ominous doctor's letter is dubbed "early onset origami". Gemma, frustrated at the weight her treatment has caused her to gain, tells a nurse taking some blood that she is experiencing "a small prick and fat-shaming"—just like the last time she went on a date. Elsewhere, some of it clunks, and although the monologues given to the other characters do broaden out the play, they do not grip as much as the central narrative. The cast are not the only ones playing double roles—the set is an ingenious single cupboard, which when swivelled in various ways becomes four separate locations—a pub, a home, a doctor's office, and a hospital ward. But the central relationship—and the question of how families survive cancer at a level beyond the medical—is the most compelling and moving, and its resolution was both heartfelt and cathartic.

Marking Time

Not so far away, thematically, is a one-woman play—*Marking Time*—written by and starring Rachel McKenzie, inspired by the approaching 70th anniversary of the National Health Service (NHS). Similar to *1 in 2 Chance*, it is the biography of a single incident of cancer—this time told from the outside. Ruth's husband Tom has prostate cancer, but, deaf to the world around her and caught up in her own concerns, she fails to notice an "Out of order" sign on a lift and blunders into it, promptly getting stuck between floors. Her inattention means she will miss the meeting with a consultant to learn whether the treatment worked, and is forced, for the next 40 min until

the engineer arrives, to examine her own life.

McKenzie—herself a former oncology nurse—makes some clever observations on the way cancer worms its way into every area of one's life, whether it is suddenly noticing charity tins in supermarkets or being put off buying walnuts after hearing the average walnut is about the size of the average prostate gland. Ruth seems an unsympathetic character at times, veering close to callousness—what monster could fail to turn up to her own husband's cancer consultation? Then again, the play hints, why must cancer's secondary victims be so perfect? Ruth has been left behind by cancer, one of those who finds an unwelcome third party in their marriage, sapping their partner's time and energy, and it is this effect in part which has prompted her to withdraw into herself.

From here, the play corkscrews into a reflection on the men who came home from war in 1945, and draws a wavering thread between ungrateful millennials, the post-war generation, the birth of the NHS (and the Fringe), and the world of today. Dealing with these broad themes in a play only 40 min long is a stretch, and the overall message that emerges—that we must seize life where we can—feels like a truism.

Sometimes, the self-imposed constraint of the space is dramatically limiting—it is hard to show physical range while stuck in a lift—and the interesting relationship between Ruth and her husband fades into the background, superseded by larger concerns that do not have the same emotional punch. Nonetheless, the return to her relationship at the play's close is welcome. The lesson Ruth takes with her as she finally leaves the lift—that "marking time" is no better than treading water—is one of optimism, and symbolises the necessary hope that cancer can be beaten, not just medically, but in its most personal effects too.

Andrew Hunter Murray