APE 2020

This document provides a short summary of presentations at the 2020 SilverStar Conference. It is intended to be an aide-memoire for those who were there, and an indication of the sort of topics addressed for those who were not.

Flexibility

The theme came about from a recognition in 2019 that flexibility is a necessary attribute in an age where we are frequently surprised and confronted. Whether as a result of unexpected political outcomes, disruptive technologies, weather events or intrinsic factors such as aging, illness or other personal circumstances.

For 2020 we trialed a new format spreading the conference sessions over 5 days, straddling a weekend. We think this format provides a great balance of opportunity for attendance and content digestibility. Potential delegates who need to return to work soon after the holiday period can usually make the sessions ahead of the weekend and those coming a little later to take advantage of shoulder fares and fewer crowds can make the segment after the weekend. Of course, maximum benefit accrues to those who can stay for the whole period.

It has been pleasing to receive feedback that the theme has been a focus for participants both before and after the conference. Personally, we have committed to a regular regime of physical flexibility training for 2020. It's going well so far but of course we will not be too hardline about it - because we need to be mentally flexible as well! This is especially the case as we develop a focus on Recovery for 2021.

The convenors -
Dr Vida Viliunas, Dr Rod Katz and Jo Katz

Introduction to SilverStar - Past, Present and Future

Ian Jenkins, Marketing Director of SilverStar resort, returned to the APE icebreaker on behalf of SilverStar mountain. This was an opportunity for APE delegates to hear an insider's account of the impact of the new ownership by POWDR.

Ian expresses a belief that the POWDR management are genuine in their ambition to "honor the essence of our resort communities by curating and integrating the best of all things local". With this in mind, the SilverStar team have been progressing the Masterplan put together in 2016-2017 (this can be downloaded here however it is a very large file - even in low resolution). The Masterplan is a nearly 400 page document covering many aspects of the existing operations and identifying directions for change to the existing operations. It is a very interesting document for those with investments in SilverStar or other mountain resorts.

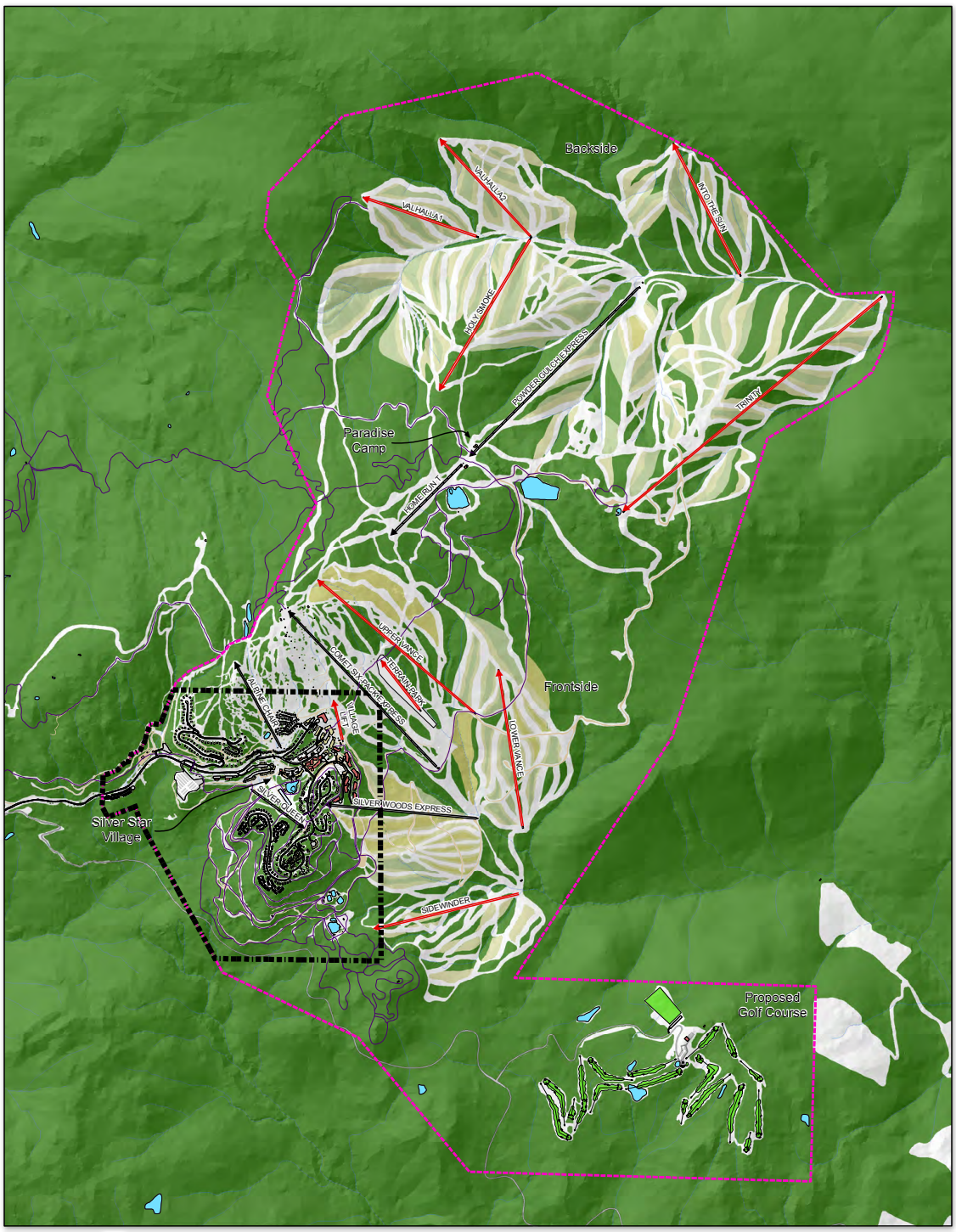
A key element of that Masterplan is the proposal for additional lifts, especially in the Powder Gulch area. Proposed new lifts are shown in red in the figure below. Ian explained that one of the top priorities would be the "Trinity" lift from the bottom of Powder Gulch to around the top of the Gypsy Queen run. This would allow an alternative evacuation route from the backside in the event of a failure of the Powder Gulch Chair. It would also allow access to much of the great terrain in that area of the mountain without having to complete the long traverse that is currently a big part of runs to that area.

Of course expanding the lifts requires a significant investment. The challenge for the new owners is whether that investment stacks up. Ian made the point that a comparison with other resorts owned by POWDR shows SilverStar to have relatively few lifts, especially compared with a resort such as Copper Mountain (see table below with figures drawn from resorts' websites). While the ratio of lifts to skiable

POWDR mountain resorts

Resort name	Acres	Lifts
Boreal CA	380	6
Copper CO	2490	24
Eldora CO	680	9
Killington Ve	1509	22
Pico Ve	468	7
Lee Canyon NV	445	3
Mt Bachelor OR	4318	12
SilverStar	3282	10
Snowbird UT	2500	14
Soda Springs CA	200	5

acres is not the only ratio that matters, it is interesting to see how extensive SilverStar is relative to some of the other portfolio resorts.



Mountain Master Plan

1 - 2

Prepared for:

SILVERSTAR my mountain

Silver Star Mountain Resort Ltd.
PO Box 3002
Silver Star, B.C.,
Canada V1B 3M1
Phone: 250-542-0224
Fax: 250-542-1236
Email: star@skisilverstar.com

Planning by:

BHA
4 -1005 Alpha Lake Rd.
Whistler, B.C., Canada, V0N 1B1
Phone: 604-932-7002
Fax: 604-938-1161
Email: bha@brentharley.com

Legend

OCP Boundary
Silver Star CRA

Nordic Trails
Proposed Nordic Trails

Existing and Proposed Lifts
Existing
Proposed

Buildings
Existing/Committed Buildings
Proposed Development

Glading
Existing Glading
Proposed Glading-Thin
Proposed Glading-Dense

SILVERSTAR my mountain

Resort Master Plan

2015

1:30,000

0 400 800 1,200 1,600 Meters

Dr Mark Porter - Flexibility for Runners (and some other thoughts)

Mark is an orthopaedic surgeon in private practice in Canberra specialising in sports injuries. His background includes 16 years as an international representative boxer. He has a lifetime average of one marathon per year and is rare among orthopaedic surgeons in having a doctorate.

Mark makes a number of observations about trends in exercise. Many of these trends are not based on good science. As an orthopaedic surgeon he benefits from some of the passing fads. For example he notes that there is good business in repairing injuries in Crossfit participants.

Stretching is one aspect of exercise that has attracted some interest in the scientific literature with typical questions related to whether participating in stretching improves performance or helps to prevents injury and whether “stiff” or “tight” structures may benefit from stretching. Mark reviews some of the factors that determine flexibility and notes that flexibility is not necessarily a runner’s friend - one study suggests that running economy in elite runners is negatively related to flexibility. The question then becomes “why stretch” and the answer is seems is that it is part of the ritual of running, it feels good and we *hope* that it prevents injuries. Stretches with some evidentiary support in published papers are; hip flexor, hamstring, quadricep, calf and ITB stretches. Mark demonstrates and explains the theory and evidence for some of these stretches for the APE delegates.

Dr Sharon Tivey - The ANZCA Final Examination

Sharon Tivey is an anaesthetist, working mainly in the public hospital system. Her undergraduate training was at The University of Sydney followed by postgraduate training in Sydney and Virginia, USA. She enjoys teaching, is a Conjoint Senior Lecturer at the University of NSW, a Supervisor of Training (Anaesthesia) and is chair of the final examination committee with the Australian and New Zealand College of Anaesthetists.

Sharon describes the issues associated with design and delivery of the ANZCA final examination. She goes through who gets to present for the exam, the curriculum it covers and how candidates prepare for the exam. The focus of the exam is described as "…the practical integration and application of knowledge in clinical practice…". With any assessment process, there is a concern that it be as free from bias as possible. Sharon describes the efforts made to achieve this through selection and training of examiners, geographic, ethnic and gender diversity, and the structure of the exam itself. Mapping of the exam to the curriculum is important to ensure actual and perceived bias is minimised. An important part of candidate evaluation is the Anaesthetic Viva component of the final exam. This accounts for 48/100 marks for local candidates and 48/60 for overseas trained specialists. These viva sessions are important in determining whether candidates have the ability to make clinical decisions based on sound judgement and experience. Candidates need to demonstrate a structured approach as well as being flexible to changing clinical problems. Flexible thinking is also needed on the part of the examining institution as it addresses questions about, for instance, increasing role for workplace based assessment, input from educationalists, and external assessments of the process.

Dr Phil Holz - The Green Whistle

Phil Holz is an anaesthetist, who grew up and now works in Newcastle after training in Australia and California. He has special teaching and academic interests in ultrasound and regional anaesthesia. His clinical practice has a strong focus on orthopaedic (especially hand and upper limb), colorectal and general surgery along with anaesthesia for certain cardiac procedures.

Phil acknowledges the efforts of his daughter in preparing this fascinating discussion on the Green Whistle, an Australian product that is going global. The active ingredient in the Green Whistle is methoxyflurane, marketed as Penthrox, administered via a hand-held inhaler. Penthrox is an analgesic agent that works particularly well in emergency situations to provide pain relief at sub-anaesthetic doses. It is widely used in ambulance services, by paramedics and lifesavers. Phil discusses the pharmacology, indicators and contraindications for use of the Green Whistle. The Green Whistle is interesting from a business perspective as the company that sells it, Medical Developments International (ASX: MVP) has seen its shares double in the last 12 months and the company valued at over $600M despite earning profits of only around $1m. This has been on the back of expansion plans into the US,UK and Europe and ultimately China. The company's strategy involves making the product available more widely and marketing to hospitals, ambulance operators and GPs. Concerns about elevated valuations for MVP include the lack of ongoing patent protection for methoxyflurane. The company is relying on brand protection and the belief that consumers need high levels of trust for a treatment administered in a high stress situation. A fascinating discussion and a company to watch.

Dr Tim Hassall - Liquid Biopsy and Genomics

Senior Staff Specialist in
Paediatric Oncology
Department of Haematology/Oncology
Children's Health Queensland

Tim notes the links between Flexibility and Extension in the prospects for treatment of CNS tumours in children (commonly medullablastoma). At Tim's centre there are approximately 50 children per annum who receive treatment for brain cancers. Survival is poor and it is difficult to identify any significant progress in treatment success. One of the major efforts that is being carried out is in the classification of cancer types, especially medulloblastoma. By examining different survival rates associated with different medullablastomas, it is hoped that there will be breakthroughs in the ability to offer differentiated treatment. Patients are routinely having lumbar punctures as part of their treatment and liquid biopsy techniques can be applied to samples from the CSF obtained during these procedures. The liquid biopsy can help identify metastatic patients, patients developing resistance, particular genome biology and the genetic profile of the recurrent tumour. Tim describes the funding need, the science and aspirations for the work being carried out at the Centre for Child and Adolescent Brain Cancer Research,

Professor Paul de Sousa - The Ultimate in Flexibility: Cancer Cells

Prof Paul de Souza is the University of Western Sydney's (UWS) Foundation Professor in Medical Oncology. He graduated from Sydney University in 1986, completed his Medical Oncology training, received his Fellowship of the Royal Australasian College of Physicians in 1992. He was Assistant Professor of Medicine at the University of Virginia. In 1997 he founded the Clinical Trials Unit and a research laboratory at St George Hospital dedicated to developing new drugs and approaches for the treatment of urological and other cancers. Since moving to Liverpool Hospital in 2011, he continues to be involved in laboratory and translational cancer research at the Ingham Institute.

Paul fills in the theoretical picture of cancer cells outlined by Tim. He describes features and functions of normal cells and the special hallmarks of cancer cells. Using microscopic video, Paul describes the movements of cells in different contexts of wound repair, immune function and cell division. He contrasts this with the Epithelial Mesenchymal Transition (EMT), the mechanism for the spread of cancer cells. These cells - Circulating Tumour Cells (CTCs) - have an Australian connection going back to 1869 through Thomas Ashworth who first observed CTCs. CTCs are a very small fraction of any circulating volume and difficult to identify in liquid biopsy (blood sample) as a result. Paul describes an adult brain cancer study that seeks to identify whether CTCs can cross the blood-brain barrier. The study required the isolation of CTCs - magnets were a part of this isolation process. Increasing precision in identifying and tracking CTCs in liquid biopsy will assist in diagnosis and treatment of cancers.

Brett Dillon CFP - The Flexible Financial Plan

Brett Dillon is Principal of BD Financial Planning, a privately owned, boutique practice with its own License (so there is no bank or life company ownership). He is also a member of the Association of Independently Owned Finance Professionals. This has proved to be a good move in light of the Royal Commission! Brett creates an achievable, goal-oriented strategy that is specifically tailored to meet short-term and long-term lifestyle aspirations taking into account investment and other risks. Brett has a diverse client base including medical specialists, GP's, business owners, retirees and expat clients. He enjoys helping clients to solve their financial complexities and to grow and protect their wealth. They can then spend focus on spending time doing the things that are important to them.

Planning is fundamental to achieving desired outcomes across all human activity whether in medicine, building and construction and in financing our lifestyles and retirement. For the financial planner, fundamental questions to cover with a client are; short term goals, cash flow, long term goals, lifestyle objectives and risks. Because of life's uncertainties, events will not unfold exactly according to any plan. For example, you can break your leg doing something you enjoy, like riding a motorbike. Dealing with these unforeseen events requires preparation and resilience. By way of preparation one can set up structures that minimise risk, or transfer risk through insurance. Clients are traditionally classified according to risk appetite descriptions such as Conservative, Balanced or Growth. Brett points out the problems with the way these classifications are carried out and how in a low yield environment the asset classifications resulting from these classifications can at times be perverse. There is a need for flexibility in financial planning. Having said that there are a set of basic paradigms that will benefit the professional planning for their future. Brett outlines the top ten of these, the final one being of course to have a good advisory team and seek out high quality advice.

Dr Rod Katz - Planning and Flexibility: Scenario Planning

Apart from convening APE conferences, Rod enjoys working for not for profit entities with a special interest in transport and safety. Much of his life has been spent thinking about, and occasionally riding, bicycles for transport. He completed degrees in Economics and Law before undertaking a relatively short career in banking and finance. The opportunity to return to university proved too enticing and he completed a Masters and PhD at the University of Sydney School of Business with a thesis on econometric modelling of demand for bicycle use.

One of the most famous quotes about planning is attributed to Dwight Eisenhower who purportedly said "… plans are useless but planning is essential". This quote articulates the planning paradox that flexibility and adaptation is needed for plans to be useful. An example of a planning technique that emphasises this need to adapt is Scenario Planning. Rod explores the military origins of Scenario Planning and how it has been used in the transport planning context. He gives examples from Queensland and Victoria on how government uses scenario planning to attempt to anticipate changes in the environment, economy and technology.

A/Prof Gary Nielsen - Orthopaedics Moving Forward

Dr Nielsen completed his primary medical degree at the University of Queensland and Orthopaedic specialty training in Brisbane before spending 2 years overseas undergoing advanced training in hip and knee arthroplasty including revision hip and knee surgery, working both in Belfast NI and Exeter, Devon, UK. Completing trauma fellowships in Salzburg, Austria and Louisville KY, USA he was a Senior Lecturer in orthopaedic surgery at Brisbane's Princess Alexandra Hospital in 1994 until 2001.
Dr Nielsen commenced in full time private practice in 2001. After stepping down in his role at State Chairman of the Qld branch of the Australian Orthopaedic Association in 2018 he completed his Graduate Certificate in Surgical Education through the University of Melbourne and has recently certified as an Independent Medical Examiner [CIME].
He is currently Associate Professor - School of Clinical Medicine at University of Queensland and is active in developing the AOA21 program for education of Orthopaedic Trainees.

Gary describes the current state of orthopaedic surgery, likely future developments and how the system of training orthopaedic surgeons is developing to match the anticipated futures. Currently orthopaedic surgery has a focus on fracture repair and soft tissue management through exposure, preparation and implantation. Gary describes some of the state of the art options for surgical and non-surgical interventions. Looking ahead, there are likely advances in surgical techniques and implantable technology. Some of the technologies that are evolving rapidly are robotics, imaging - including virtual reality. orthobiologics (involving stem cells for cartilage, nerve and nerve supply growth), nanotechnology and 3D printing of implants and devices for individualised treatment. Gary describes some of the challenges in introducing these new technologies and then focuses on one of his primary areas of interest - appropriate training for the next generation of Australian orthopaedic surgeons. He describes the AOA 21 initiative and how it is transforming the learning and assessment approach for trainees. Use of a smartphone app to log experience, workplace assessments and feedback marks a major new development in ensuring trainees receive systematic exposure and experience to achieve articulated competencies.

Dr Kirsten Bailey - Frailty in the Elderly

Dr Bailey is a Fellow of the Australian Faculty of Rehabilitation Medicine. She practices as a Consultant in Rehabilitation Medicine at several public and private facilities in Newcastle with a special interest in Musculo-Skeletal medicine.

Kirsten describes frailty as a combination of syndromes and diseases. It is a biological state in the transition from health to end of life and is accompanied by a loss of independence. The biological state is recognised through deficits in functional, cognitive, psychological, nutritional and social domains. Defining frailty is important in deploying resources such as surgical and other medical services. There are a number of tools used to identify and assess frailty and they generally have good predictive validity. One of the tools is the Fried Model which incorporates measures of weight loss, self reported exhaustion, energy expenditure, walking speed and grip strength. Sarcopenia is the change in muscle mass that accompanies aging. It contributes to frailty and its rate is affected by modifiable factors such as disease, inactivity and malnutrition. Malnutrition is prevalent in the elderly due to a number of factors such as reduced taste and smell, chewing and swallowing difficulty and social issues. Kirsten runs through some nutrition strategies that can assist frailty prevention with resultant benefits for post-operative outcomes. She advocates attention to frailty in developing policy for community health and pre operative assessments.

A/Prof Darren Mansfield - Insomnia

Darren is deputy director of Respiratory Medicine at Monash Health. He completed a PhD in sleep disorders looking at the interaction of sleep disordered breathing and heart function in patients with congestive heart failure. Darren's subject generates extensive discussion as people question him about their personal experiences with family and friends suffering disordered breathing during sleep.

Darren provides a broad definition of insomnia - difficulty getting to sleep, staying asleep or having non restorative sleep for a period of at least four weeks. He notes the prevalence of insomnia (affecting up to a third of the adult population) along with predisposing, precipitating and perpetuating factors. Treatment of insomnia symptoms through medication is very common however behavioural and cognitive therapy has been increasingly deployed. One of the more promising and effective behavioural therapies that Darren uses is, the somewhat counter-intuitive, sleep diet. This involves a focus on sleep efficiency measured by the total sleep time relative to the time in bed. Patients taking on a sleep diet delay bed time and advance getting up time. This trains them to increase their sleep efficiency and ultimately reduces insomnia. Like any diet, it is not without effort but can be rewarded by a significant improvement in sleep and ultimately overall health. As Darren notes, sleep is increasingly recognised as essential for wellbeing and calls for a focus on sleep in health budgets.

A/Prof Andrew Stevenson - Flexibility in colorectal surgery

Andrew (left in picture with son Grant and wife and delegate Dr Aida Stevenson) was previously the director of the Colorectal Surgery at Royal Brisbane Hospital and is Associate Professor at the University of Queensland. He has been at the forefront of clinical trials of different surgical approaches to colorectal cancer treatment and is internationally recognised as a leader in his field.

Andrew references flexibility in surgical options, new techniques, new technologies and the associated learning curve in colorectal cancer surgery. After reviewing the anatomy of the colon, rectum and anus, Andrew discusses the development of surgical approaches. Looking initially at anal and rectal cancers, he notes the contributions of RJ “Bill” Heald who was a pioneer in focussing on clear margins with complete mesolectal excisions. This has evolved over time with increasing use of minimally invasive surgery (MIS) and a focus on measuring effectiveness of surgery through a range of other performance measures. He discusses optimal staging and newer applications of organ preservation strategies, such as total neoadjuvant therapy (TNT), that can reduce or replace surgery. New surgical techniques, such as the laparoscopic approaches pioneered in the nineties in the Southern Hemisphere by Russel Stitz, have shown benefit to patients. However, there is a learning curve for surgeons to become accomplished in these techniques and this can mean that a surgeon needs to do a number, possibly 250, of cases to become proficient and achieve the lower complication rates and better outcomes that MIS promises. It is expected that this learning curve can be shortened through better, more flexible, technology such as scopes, ports and articulating instruments manipulated using robotics. For rectal cancers, increased use of flexible, snake like, instruments for trans anal (TA) approaches allows MIS for even the more difficult operations. Enthusiasm for technological advances does need to be tempered by the evidence for its efficiency and effectiveness. Andrew reviews some of the studies from Norway and the Netherlands that have led to restrictions on deployment of surgical innovations, a recognition of the need to recognise the learning curve and to have effective proctoring programs for training colorectal surgeons.