SPECIAL COMMUNICATION

“A Paradox Persists When the Paradigm Is Wrong”: Pisacano Scholars’ Reflections from the Inaugural Starfield Summit

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The inaugural Starfield Summit was hosted in April 2016 by the Robert Graham Center for Policy Studies in Family Medicine and Primary Care with additional partners and sponsors, including the Pisacano Leadership Foundation (PLF). The Summit addressed critical topics in primary care and health care delivery, including payment, measurement, and team-based care. Invited participants included an interdisciplinary group of pediatricians, family physicians, internists, behaviorists, trainees, researchers, and advocates. Among the family physicians invited were both current and past PLF (Pisacano) scholars. After the Summit, a small group of current and past Pisacano scholars formed a writing group to reflect on and summarize key lessons and conclusions from the Summit. A Summit participant’s statement, “a paradox persists when the paradigm is wrong,” became a repeated theme regarding the paradox of primary care within the context of the health care system in the United States. The Summit energized participants to renew their commitment to Dr. Starfield’s 4 Cs of Primary Care (first contact access, continuity, comprehensiveness, and care coordination) and to the Quadruple Aim (quality, value, and patient and physician satisfaction) and to continue to explore how primary care can best shape the future of the nation’s health care system. (J Am Board Fam Med 2016;29:793–804.)

Keywords: Family Practice; Forecasting; Leadership; Personal Satisfaction; Physicians, Family; Primary Health Care; Research Personnel; Writing

Amid cherry blossoms in Washington DC (April 23 to 26, 2016), 146 invited primary care experts and advocates gathered in honor of one of the greatest researchers in primary care—Barbara Starfield. The inaugural Starfield Summit was hosted and organized by the Robert Graham Center for Policy Studies in Family Medicine and Primary Care and cosponsored by the American Board of Family Medicine Foundation, the Pisacano Leadership Foundation (PLF), and Family Medicine for America’s Health. The website (www.starfieldsummit.com) hosts detailed information and resources from the Summit, including the list of attendees and speakers. The Summit aimed to focus discussion on critical topics in primary care and health care delivery, including payment, measurement, and team-based care. Invited participants included an interdisciplinary group of pediatricians, family physicians, internists, behaviorists, trainees, researchers, and advocates. Among the family physicians invited were both current and past PLF (Pisacano) scholars.

Summit Structure and Discussion Process

The invited speakers presented 20-minute “Big Idea” presentations (in the style of TED Talks) discussing each of 3 featured topic domains (pay-
ment, measurement, and team-based care), which were followed by small-group breakout sessions (fashioned after the World Café method\textsuperscript{2}). The break-out sessions were structured into 4 predeter-
determined interprofessional discussion groups that re-
mained constant throughout the entire conference.

Speakers, matched with 2 colleagues assigned to assist in framing and leading discussion in these groups, rotated among the 4 discussion groups. During discussions, written notes were taken by Pisacano scholars and are being used to create the content for multiple dissemination reports, including this Article. The Summit culminated with a Congress-
ional Forum in the US Capitol Visitor’s Center.\textsuperscript{3} Summit attendees paid their own way to the event; in some cases, individuals received full or partial spon-
sorship from their supporting organizations.

Appendix 1 lists the Summit attendees and includes asterisks next to the names of the Pisacano Scholars who acted as note-takers during the break-out sessions. The described format for discussion allowed themes to develop within groups, which were shared at multiple levels throughout the Summit. This historic Summit garnered a high level of expertise, energy, and enthusiasm for primary care and inspired conversations re-
garding primary care’s role in health care sys-
tems—past, present, and future. Based on the success of this first Summit, future Starfield Sum-
mits are being planned.

**PLF and Its Role in the Summit**

The PLF, created by the American Board of Family Medicine in 1991 to identify and develop leaders in family medicine, awards the Pisacano Scholarship to a small group of medical student leaders entering the discipline of family medicine each year. In ad-
dition to scholarship funding provided to current scholars throughout their residency training, current and past (alumni) Scholars have the opportu-
nity to participate in an annual leadership sym-
posium. In 2016, the PLF held its annual symposium as a preconference to the inaugural Starfield Summit, bringing together a diverse group of Pisacano scholars and alumni, including policy leaders, acad-
emics, practicing physicians, and family medicine trainees. Eighteen current Pisacano Scholars and 21 Pisacano Scholar alumni attended the Starfield Summit, which had 146 total invited attendees. Following the Pisacano symposium and the Star-
field Summit, the authors formed a writing group to summarize highlights from the Summit and to contribute to ongoing conversations around the future of primary care in the United States.

**Overview of the Summit Discussions: “A Paradox Persists When the Paradigm is Wrong”**

During the pre-Summit PLF symposium, Pisacano scholars and alumni were introduced to the Starfield Summit topics to prepare for discussion about the state of primary care in the United States. In response, Pisacano Scholar Dr. Justin Mutter re-
marked, “a paradox persists when the paradigm is wrong.” This comment became a theme repeated throughout the Summit, given that we considered the paradox of primary care within the context of our current health care system.

**What is the Paradox?**

Primary care is better at improving the health of the forest than of the trees. Dr. Kurt Stange ex-
plored this paradox and summarized numerous studies illustrating that when primary care teams are measured by care for individual diseases, primary care performance is inferior to specialty care with regard to disease-specific outcomes and adherence to disease-specific guidelines and recommendations.\textsuperscript{4} However, in ecological studies, improved population health outcomes are associated with a larger, stronger, and more integrated primary care system.\textsuperscript{4,5}

The Starfield Summit explored several addi-
tional paradoxes relevant to primary care. Although the United States spends more on health care than other high-income countries, we have poorer health outcomes.\textsuperscript{5} These outcomes are thought to have been driven by a historic lack of commitment to social services and primary care.\textsuperscript{6} In the United States, clinical care is responsible for only 14% of health status\textsuperscript{7,8}, but accounts for 95% of US health care costs.\textsuperscript{9} Furthermore, the United States is the only high-income country without a publicly funded universal health system\textsuperscript{6} and 9% of Amer-
icans remain without insurance.\textsuperscript{10}

**What is the Paradigm?**

In our current system, fee-for-service reimburse-
ment and productivity models reward the adminis-
tration of tests, procedures, and medications aimed at treating individual diseases,\textsuperscript{11} with minimal re-
imbursed for coordinated services that consider
the whole patient in the context of their community. This disease-centered paradigm creates vertical medical silos focusing on specific organ systems and illnesses. Without an incentive for holistic treatment and without measures for comprehensive care, integration across care domains is often not prioritized. Further, a critical aspect of health care delivery—the relationship between provider and patient—has been devalued, as evidenced by shorter primary care visits and inconsistent reimbursement for care coordination and asynchronous care services (eg, phone calls, emails), which are capable of strengthening connections and increasing “touches” between patients and primary care teams. Current systems of care are fragmented, force patients to choose specific in-network providers, and provide few resources for delivering preventive health care services or addressing the social determinants of health. Without a radical shift in care delivery and payment to adequately address the upstream causes of illness, sustainability of preventive services and coordinated chronic disease management is threatened. Continuation of the current paradigm will lead to escalation of health care costs without the assurance of improved actual health of individuals and of populations.

Is a Paradigm Shift on the Horizon?
In a ground-breaking decision to move the United States away from fee-for-service reimbursement and toward value-based payment, Congress passed the Medicare Access & CHIP Reauthorization Act (MACRA) in April 2015. MACRA attempts to alter the way in which Medicare will pay for services, including ending the sustainable growth rate formula for how Medicare payments were previously determined, creating a new framework for paying health care providers for comprehensive care, and establishing new quality metrics. Although the Summit could not define a scalable payment model for the entire US health care system and the primary care function, several themes regarding important elements of an effective payment system arose in Summit discussions and are summarized in Table 1. Several presenters highlighted the limitations of our current payment structures and the need for broader support of primary care services. Systems of payment based on fee-for-service reimbursement favor procedures and specialists, driving health care into vertical medical silos and promoting volume of services over value. This trajectory inhibits the improvement of primary care and the financial sustainability of the health care system. Despite inherent
problems in the fee-for-service model, it can be valuable if restructured to place higher fees on services that support improvement in overall health outcomes rather than individual disease states and when used for low-cost and underutilized services such as vaccines. Alternative models that incorporate different payment schemes are being implemented across the country. Summit participants discussed advantages and disadvantages of these models and how some experiments show promise for the future. For example, the state of Maryland created global budgets in which hospitals partnered with the Centers for Medicare and Medicaid Services to abolish fee-for-service payments and replace them with a global funding structure, creating the first hospital risk-adjusted rate regulation system. This transformed payment model allows hospitals to focus on outcomes and value while maintaining financial stability. In the first year alone, Maryland saved Medicare $116 million while reducing the rate of potentially preventable conditions by 26.3%. In Rhode Island, a policy change created a mandated increase in primary care expenditures to 10% of total health care expenditures, leading to a savings of over $100 million in its first 4 years. Rather than simply increasing fee-for-service rates for primary care services, payers were required to instead invest in other primary care

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<thead>
<tr>
<th>Themes of Starfield Summit Participants’ Discussion on Payment</th>
<th>Representative Statements Reflecting Theme</th>
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<tbody>
<tr>
<td>There is currently no streamlined, organized system of payment for healthcare.</td>
<td>● Working with eighty different payers is difficult on a practice.</td>
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<td>● Different payment models serve to fragment our work by turning each aspect of healthcare into a separate transaction.</td>
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<tr>
<td>Barriers and silos hamper innovative payment models.</td>
<td>● The problem of a reductionist, disease-centered paradigm affects specialties as well as primary care.</td>
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<td>● We need to redefine the buckets of how we pay for social services and healthcare, with no walls between the issues that drive health, including upstream causes.</td>
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<td>Payment models must support, and be supported by, appropriate data measurement, data collection, and delivery infrastructure.</td>
<td>● It is hard to innovate within regulatory environments that narrowly define healthcare.</td>
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<td>● How do we know when primary care is doing a good job?</td>
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<td></td>
<td>● We need good evidence on what makes a difference for the health of patients and populations.</td>
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<td>● We need payment models that support implementation of new effective services.</td>
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<tr>
<td>Effective payment for primary care would pay for accessibility, comprehensiveness, continuity, and coordination.</td>
<td>● Payment needs to honor the patient-provider relationship and be structured around ways providers can be held accountable.</td>
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<td></td>
<td>● How we define primary care is currently the sum of our fee-for-service diagnosis codes.</td>
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<tr>
<td></td>
<td>● Primary care needs to take accountability for population health and advocate for a payment system that reflects this.</td>
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<tr>
<td>Payment needs to be flexible so that clinics, teams, and health systems can use global payments to meet patients in innovative ways and address population health.</td>
<td>● The population health aspect of the triple aim lies almost entirely outside of the health system as it currently exists.</td>
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<td></td>
<td>● Mandated investments in primary care in Rhode Island show you can bend the cost curve with a global per-member-per-month flexible payment on a large scale.</td>
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<tr>
<td></td>
<td>● Risk adjustment is necessary to prevent further marginalization of vulnerable populations.</td>
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<td></td>
<td>● Social determinants of health are not just things that poor people face, they are a problem for everyone.</td>
</tr>
<tr>
<td></td>
<td>● Why is there not time for pro-active case management by clinicians?</td>
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<tr>
<td></td>
<td>● Need to address all the things that our patient’s struggle with to create health.</td>
</tr>
<tr>
<td>An effective payment system needs to be risk-adjusted on the population level, rather than individual patients. Budgets for primary care need to include interventions that address the social determinants of health.</td>
<td>● Place outcomes and value on how we pay for primary care.</td>
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<tr>
<td></td>
<td>● Place primary care at the core of the payment system.</td>
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</tbody>
</table>
resources such as care management, behavioral health services, and increased health information exchange. Summit participants also learned about a disruptive payment innovation, Direct Primary Care (DPC), and about how DPC organizations such as Qliance, Iora Health, and One Medical Group are changing the traditional paradigm through per-member payment models that allow flexibility in service delivery.\textsuperscript{21–24} These new payment paradigms require clinical leaders, employers, and patients to come together in unique ways. MACRA may also help to shift these payment paradigms, but it is too soon to predict whether it will inspire the radical change needed for transformation.

Innovations in financing and delivery of health care provide hope and direction for the future, but many questions remain. Which of these payment and delivery models will work to provide the best health outcomes and will be scalable on a national level? Perhaps the best answers will emerge, as in Maryland and Rhode Island, by turning to individual states for solutions that will create a healthier America. To determine which of these payment systems has the most potential, we must begin to create metrics that capture outputs relevant to primary care.

2) Measurement: Are We Measuring What Matters Most?

Summit discussions around pay-for-performance included some positive comments regarding its value in individual disease-based evaluation and reimbursement, while drawing attention to important limitations. It remains unclear how to measure components of care delivery that influence broader health outcomes, especially in complex patients. Table 2 summarizes themes that emerged from the Summit discussions regarding the quality metrics that can be used, or need to be developed, to assess the ability of primary care to change health outcomes and improve population health.

A variety of Summit talks explored what we know about measuring the primary care function. Currently $15.4 billion is spent annually on monitoring quality.\textsuperscript{25} Professor Amanda Howe, an academic general practitioner from the United Kingdom (UK) and the incoming president of the World Organization of Family Doctors (Wonca), shared a cautionary tale of how an initiative to measure and reward primary care quality across the UK (the Quality Outcomes Framework [QOF]) did not have the consequences it intended.\textsuperscript{26} The QOF attempted to provide value-based payments to physicians, but its multiple disease-based metrics supported process driven rather than outcomes-based care. Over time it tended to fragment the way primary health care was delivered, rather than improving whole-person or population care. This contributed to a decline in physician satisfaction with the QOF, and there was no overall measurable improvement in health inequities.\textsuperscript{26}

Measuring clinics on their ability to maintain optimal access and a comprehensive array of services are 2 examples of ways in which metrics can support some of the features of primary care that are thought to underlie the value it brings to patients and health systems.\textsuperscript{27,28} Another aspect of primary care that is difficult to measure, but arguably the most personally meaningful, is the effect of a therapeutic relationship with a consistent clinician.\textsuperscript{13,14} Although not all aspects of clinical practice can be measured, metric reform has the potential to truly transform primary care delivery.

Quality metrics and subsequent payments that incentivize and support the primary care function have the potential to affect individual and population health. However, radically shifting the current measurement paradigm presents challenges including the difficult tasks of development, implementation, and evaluation of metrics that lead to improved outcomes and are relevant to patients. In addition to capturing important primary care functions, measurement needs to account for social vulnerabilities so that quality can be evaluated in the context of the social determinants of health and health disparities.

3) Team-Based Care: Revisiting and Revitalizing Old Models

Summit discussions yielded consensus that teams are critical for the success of the primary care function. Table 3 reflects themes that came out of the varied discussions on the topics of teams. Summit participants examined roadmaps for transforming primary care practices with team-based approaches. Examples highlighted included the 10 Building Blocks of High-Performing Primary Care,\textsuperscript{29} team strategies for integrating behavioral health and primary care,\textsuperscript{30} incorporating patients and communi-
ties into primary care teams (eg, community health workers), and approaches for increasing joy in practice. Participants concluded that effective teams must be adaptable with regard to the needs of the population, size of the community, and specific roles of team members. The patient as a vital team member must remain at the center of all team activities. Team-based care must also exist across specialties and locations of the health system (eg, clinic, emergency department, hospital), and community engagement as a form of team care is crucial.

Team-based care can improve access to a broad scope of primary care for individuals and communities. For example, team members can share routine well-care and preventive care tasks (eg, referrals for cancer screenings, immunization forecasting) as well as care coordination and education, enabling clinicians to see fewer, but more complex, patients per day for longer visits and freeing time for additional leadership and administrative tasks. Although team-based approaches have improved efficiency and quality in many studies, they have shown limited effect on addressing...
social determinants of health and connecting patients with specialty care.\textsuperscript{42}

Sidney and Emily Kark, the founders of community-oriented primary care, incorporated community needs assessments, population health data, community health workers, and multi-disciplinary teams using community-oriented, team-based approaches in the rural South African Pholela Health Centre during the 1940s.\textsuperscript{43} As the paradigm continues to shift away from volume-based care and toward teams, we should revisit these and other pioneering models of integrated primary care, public health, and behavioral health. Patient-Centered Medical Homes with patient navigators, health coaches, integrated behavioral health, and daily huddles are also reemerging as a path to improved care.\textsuperscript{44}

### Discussion

The Starfield Summit renewed our commitment to Dr. Starfield’s 4 C’s of Primary Care (first contact access, continuity, comprehensiveness, and care coordination)\textsuperscript{45} and to the Quadruple Aim (quality, value, and patient and physician satisfaction).\textsuperscript{46} If the current payment paradigm persists, our health care system will continue to be dominated by competition and profit instead of collaboration on behalf of our patients and communities. We must

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Table 3. Brainstorming Themes Regarding Team-Based Care Discussed at the 2016 Starfield Summit

<table>
<thead>
<tr>
<th>Themes of Starfield Summit Participants’ Discussion on Team-Based Care</th>
<th>Representative Statements Reflecting Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good teams require the integration of primary care with services outside the structure of the traditional primary care clinic.</td>
<td>● We need Accountable Health Communities instead of Accountable Care Organizations. ● We need to include community health workers and public health professionals to help address the social determinants of health. ● We inadvertently stigmatize mental health issues every time we refer out of clinic.</td>
</tr>
<tr>
<td>Team-based care can act as a catalyst to joyful practice, but will require upfront and continuous investment to function successfully.</td>
<td>● We need to “Share the Care” with team members. ● Teams can help prevent the death spiral of primary care via burnout. ● Team hygiene is critical: this requires coaching/leadership training.</td>
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<tr>
<td>Team-based care can increase the comprehensiveness of services available and are more likely to meet patients’ needs.</td>
<td>● Teams are the antidote to the trend towards narrowing scope of practice within primary care. ● Teams can facilitate communication with specialists and supportive services to improve comprehensive patient care.</td>
</tr>
<tr>
<td>Specialists should be valued members of teams and our system should promote communication between specialties and primary care.</td>
<td>● We ignore a large part of our health community when we don’t partner with specialist colleagues. ● Everything is about relationships and teams promote those stronger relationships. ● We need to match the micro-culture of teams with the macro-culture of institutions.</td>
</tr>
<tr>
<td>Creating excellent teams starts with having the right people in medical school—those who can be excellent team members—and how we train them to be those members.</td>
<td>● We must stop training dehumanized cowboys. ● We need to find and train individuals with substrate to be hybrids—the technologist and the humanist.</td>
</tr>
<tr>
<td>Changing current practices to achieve team-based care will be difficult.</td>
<td>● Where is the “UpToDate” for practice change? ● Research is not enough to drive change. We need partnerships and alliances to fuel action.</td>
</tr>
<tr>
<td>The patient needs to be a part of the team in team-based care.</td>
<td>● Start each team meeting with a patient story. ● We need to get out of the “safe” environment of our clinics and into the community to build partnerships with our patients. ● We need to partner with patients for practice redesign—they have unprecedented power to advocate with us. ● We need patient advocates with “lived experiences” to be on clinic boards and contribute to the betterment of the clinic and of the community.</td>
</tr>
</tbody>
</table>
move to a payment system accountable for improved health outcomes with careful attention to social and clinical vulnerabilities to ensure that health disparities narrow, not widen. These outcomes must include evidence-based, whole person-centered, comprehensive metrics in addition to those that are disease centered. This will require the development, implementation, and evaluation of methods for measuring the outcomes that matter most in primary care and population health. Models of team-based care must be reinvigorated and reinvented in today’s world.

**Importance of Primary Care Research**

The teachings and research of Dr. Starfield are both reassuring and inspiring as we continue along this path to radically shifting entrenched paradigms. Starfield’s rigorous work throughout the world illustrated how strong primary care foundations contribute to better health for populations at lower costs. Her work also demonstrated the need for sustained infrastructure to support primary care and health systems delivery research—infrastructure that supports our best and brightest scientists and infrastructure that facilitates future innovation and discovery that can be scaled to serve populations. By building and strengthening 21st century primary care laboratories, we can rigorously evaluate innovative care models and expanded primary care financing and delivery systems. As evidence mounts, it can inform better policies and accelerate the transformation of primary care and the health system as a whole. A central premise of the Starfield Summit, which needs to be tested, is that positive change in health care will occur when researchers, policy makers, and clinicians work together to design and execute high-quality primary care research, and implement and disseminate the resulting best practices.

**Conclusion**

Now is a time of opportunity to build on the foundational evidence created by Dr. Starfield, deepening our discoveries of how primary care can most optimally affect the future of health and health care delivery in this country. Following in Dr. Starfield’s footsteps and standing on the shoulders of primary care giants, we will courageously continue to study, learn, practice, and shift the paradigm until the paradox fails to exist.

The authors gratefully acknowledge formatting assistance from Sonja Likumahuwa-Ackman and Rebecca Luoh of Oregon Health Sciences University Family Medicine department.

**References**

14. Green LA, Puffer JC. Reimagining our relationships


Appendix 1
List of Attendees at Starfield Summit (from http://www.starfieldsummit.com/documents/)

*Indicates Pisacano Scholar notetaker

Larry Anderson
Bengt Arnetz
*Kathleen Barnes
Andrew Bazemore
Darcy Benedict
*Paige Bennett
Robert Berenson
Arlene Bierman
Mary Beth Bigley
Jonathan Blum
Elizabeth Brown
Shannon Brownlee
Jennifer Carroll
Bob Cattoi
Agnes Cawi
Steve Cha
Candice Chen
Frederick Chen
*Maggie Chen
Marshall Chin
Megan Coffman
Jonathan Cohn
Steve Cook
*Anastasia Coutinho
Ardis Davis
Jennifer Devoe
*Trevor Dickey
Perry Dickinson
Noemi Doohan
Robert Dribbon
Marguarette Duane
Elizabeth Enschede
Kim Epperson
Rebecca Etz
Bernard Ewigman
Blake Fagan
Rushika Fernandopulle
*Jillian Fickenscher
Terry Findlay
Michael Fine
Anne Gaglioti
Nicole Gastala
Valerie Gilchrist
Rick Glazier
Stephanie Gold
English Gonzalez
Larry Green
Robert Hall
*Seneca Harberger
Sandra Hassink
Carolyn Hewson
Amanda Howe
Lauren Hughes
Elizabeth Hutchinson
Jane Ireland
Yalda Jabbarpour
Susan Jackson
Paul James
*Jonathan Jimenez
Lara Jinmanus
Samuel Jones
Douglas Kamerow
Art Kaufman
Christina Kelly
Ali Khan
Kristen Kimbrel
*Nathan Kittle
Kathleen Klink
Keith Knepp
Chris Koller
Stanley Kozakowski
Meredith Kratzmann
Alex Krist
Allana Krolikowski
Anton Kuzel
Lisa LeRoy
Lenny Lessor
Evelyn Lewis&Clark
Winston Liaw
Kenneth Lin
Steven Lin
Kurt Lindberg
Jennifer Lochner
Theodore Long
*Elizabeth Looney
Daniel Lowenstein
Sean Lucan
Rebecca Luoh
Laura Makaroff
Marie Mann
Jason Marker
Paul Martin
*Sara Martin
Amy Matheny
Kristine McCoy
Lloyd Michener